

RTI REQUEST DETAILS		
Registration No. :	CSLTD/R/E/26/00002	Date of Receipt : 06/01/2026
Type of Receipt :	Online Receipt	Language of Request : English
Name :		Gender :
Address :		
State :		Country :
Phone No. :		Mobile No. :
Email :		
Status(Rural/Urban) :		Education Status :
Is Requester Below Poverty Line ? :		Citizenship Status Indian
Amount Paid :	10)	Mode of Payment Payment Gateway
Does it concern the life or Liberty of a Person ? :	No(Normal)	Request Pertains to :
Information Sought :	As per Notification No. CSL/P&A/RECTT/CANSRU PERMA/WORKMEN/07/2025/1 dated 01st March 2025 iam attend the exam of junior technical assistant electrical my register number is 50830466 1)my answer paper copy of discriptive and objective type exam 2)first and second rank holder mark separate in discriptive and objective type exam	
Print Save Close		

**Sub: Information Under Right to Information Act**

Dear Sir,

1. Please refer your RTI request no. CSLTD/R/E/26/00002 dated January 06, 2026. The reply to the information sought under the said request relating to the selection for the post of Junior Technical Assistant (Electrical) in CANSRU vide Vacancy Notification Ref No. CSL/P&A/RECTT/CANSRU PERMA/WORKMEN/07/2025/1 dated March 01, 2025, is given below:

- (i) RTI Requester's (Reg. No. 50830466) answer paper copy of descriptive and objective type exam

Reply

The answer sheet of Objective and Descriptive Type Tests of the RTI Requester is placed at **Annexure I**.

- (ii) first and second rank holder mark separate in descriptive and objective type exam

Reply

The marks secured by the candidate selected (Rank 1) for the above referred post is given below:

Reg. No.	Marks secured		
	Objective Type Test	Descriptive Type Test	Total
50833540	48.00	19.00	67.00

The marks secured by non-selected candidate is personal information related to a third party, the disclosure of which has no relationship to any public activity or interest. The disclosure of such information is exempt pursuant to Section 8(1)(j) of the Right to Information Act, 2005 and hence, cannot be furnished.

2. If you are not satisfied with the above reply, you may prefer an appeal within 30 days from the date of receipt of this letter to Shri Jose V J, Director (Finance) & CMD (Addl. Charge) & Appellate Authority, Cochin Shipyard Limited, Administrative Building, Cochin Shipyard Premises, Perumanoor, Kochi – 682015.

Thanking You,



Yours faithfully,

Syamkamal N

Company Secretary & CPIO





कोचीन शिपयार्ड लिमिटेड / COCHIN SHIPYARD LIMITED

भारत सरकार की श्रेणी - 1 मिनिरात कंपनी / A Government of India Category-I Miniratna Company
पत्तन, पोत परिवहन और जलमार्ग मंत्रालय / Ministry of Ports, Shipping and Waterways

सीएसएल- ए.एन पोत मरम्मत यूनिट (सीएएनएसआरयू), श्री विजय पुरम - 744 101
CSL-AN Ship Repair Unit (CANSRU), Sri Vijaya Puram - 744 101

OBJECTIVE TYPE WRITTEN TEST TO THE POST OF JUNIOR TECHNICAL ASSISTANT (ELECTRICAL) FOR CANSRU

Date: 15/09/2025

DURATION OF THE TEST : 75 Minutes
MAXIMUM MARKS : 70 Marks

(48)
69

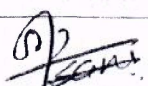
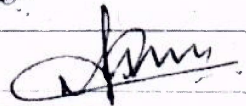
DO NOT OPEN THIS QUESTION PAPER-CUM-ANSWER BOOKLET UNTIL ASKED TO DO SO

GENERAL INSTRUCTIONS

1. ANSWER ALL QUESTIONS. There shall be no negative marks.
2. Answers are to be marked using ✓ mark against the most appropriate option among the options provided in the Question Booklet using BALL POINT PEN.
3. Rough work, if any, is to be done on space provided in the Question Booklet only. No separate sheet will be provided for rough work.
4. Calculators, Mobile, Electronic items etc., are not permitted inside the examination hall.
5. Candidates seeking, receiving and /or giving assistance during the test will be disqualified.
6. The right to exclude any question (s) from final evaluation rests with CSL.
7. Do not seek any clarification on any item in the Question Booklet. Use your judgment.



Please fill in the following details using ball point pen.

Name of Candidate	
Registration No.	50830466
Name of Post	JUNIOR TECHNICAL ASSISTANT (ELECTRICAL)
Signature of candidate	
Signature of invigilator	

THIS QUESTION PAPER-CUM-ANSWER BOOKLET SHOULD BE HANDED OVER TO THE INVIGILATOR ON COMPLETION OF THE TEST



PHASE I (PART I)

**OBJECTIVE TYPE TEST FOR THE POST OF
JUNIOR TECHNICAL ASSISTANT (ELECTRICAL) FOR CANSRU**

I. GENERAL KNOWLEDGE

1. Which planet is known as the Red Planet?

☒ a) Venus

b) Mars

c) Jupiter

d) France

2. What is the capital city of Japan?

a) Beijing

b) Seoul

☒ c) Tokyo

d) Bangkok

3. Who wrote the play "Romeo and Juliet"?

a) Charles Dickens

b) Mark Twain

☒ c) William Shakespeare

d) Leo Tolstoy

4. In which year did the Titanic sink?

a) 1910

☒ b) 1912

c) 1914

d) 1918



5. What is the most widely spoken language in the world?

- a) Spanish
- b) English
- ☒ c) Mandarin
- d) Hindi

II. REASONING

6. If "PEN" is coded as "QFO", how is "PAD" coded?

- ☒ a) QBE
- b) QAC
- c) QAE
- d) QAD

7. What comes next in the series: 3, 6, 11, 18, 27, ...?

- ☒ a) 38
- b) 40
- c) 42
- d) 45

8. If North becomes South and South becomes East, what will East become?

- a) North
- b) South
- ☒ c) West
- d) East

9. A man is twice as old as his son. After 10 years, he will be 1.5 times as old as his son.

How old is the son now?

- a) 10 years
- b) 15 years



☒ c) 20 years

d) 25 years

10. If today is Monday, what day will it be 45 days from now?

☒ a) Wednesday

b) Sunday

c) Saturday

d) Friday

III. QUANTITATIVE APTITUDE

11. A train travels 120 km in 2 hours. What is its speed in km/h?

a) 50 km/h

☒ b) 60 km/h

c) 70 km/h

d) 80 km/h

12. If a shirt is sold for ₹800 after a discount of 20%, what was its original price?

☒ a) ₹1000

b) ₹960

c) ₹800

d) ₹840

13. A sum of ₹2000 is to be divided among A, B, and C in the ratio 2:3:5. How much will B get?

☒ a) ₹600

b) ₹800

c) ₹1000

d) ₹1200



14. The perimeter of a rectangle is 50 cm. If the length is 15 cm, what is the width?
- ☒ a) 10 cm
- b) 12.5 cm
- c) 15 cm
- d) 17.5 cm
15. If the cost price of an item is ₹150 and the selling price is ₹180, what is the profit percentage?
- a) 15%
- ☒ b) 20%
- c) 25%
- d) 30%

IV. GENERAL ENGLISH

16. She is _____ to start her own business.
- ☒ a) eager
- b) eagerly
- c) eagerness
- d) eagernessfully
17. The book was so interesting that I could not put it _____.
- ☒ a) down
- b) up
- c) off
- d) away
18. He is a man of great _____.
- ☒ a) knowledge



- b) knowing
- c) knows
- d) knowledgable

19. Choose the word that best fits the sentence: "The weather was so _____ that we decided to stay indoors."

- a) beautiful
- ☒ b) inclement
- c) lovely
- d) pleasant

20. Find the synonym of the word "happy".

- a) Sad
- ☒ b) Joyful
- c) Angry
- d) Displeased

V. SUBJECT BASED

21. In energy management of ships, the primary goal is:

- a) Reducing lighting load
- ☒ b) Minimizing fuel consumption and emissions
- c) Reducing switchgear size
- d) Improving cable insulation

22. The no-load current of a transformer is about:

- a) 50-60% of full-load current
- b) 20-30% of full-load current
- ☒ c) 2-5% of full-load current
- d) 10-15% of full-load current



23. Current transformers should never be:

- ☒ a) Open-circuited on secondary
- ☐ b) Short-circuited on secondary
- ☐ c) Both
- ☐ d) None

24. In DC machines, interpoles are used to:

- ☒ a) Reduce armature reaction
- ☐ b) Increase flux
- ☐ c) Decrease losses
- ☐ d) Improve efficiency

25. In a SCR, holding current is:

- ☐ a) More than latching current
- ☒ b) Less than latching current
- ☐ c) Equal to latching current
- ☐ d) None

26. The form factor for sine wave is:

- ☒ a) 1.11
- ☐ b) 1.0
- ☐ c) 0.707
- ☐ d) 2.0

27. The efficiency of a 200 kVA transformer is maximum at 100 kW load, unity PF. At full load and unity PF, efficiency will be:

- ☐ a) Higher
- ☐ b) Lower



- c) Equal
d) Cannot be predicted
28. In induction motors, deep-bar rotor is used to:
- a) Reduce core losses
b) Improve PF
c) Reduce starting current
d) Reduce crawling
29. In single-phase full bridge rectifier, the ripple frequency is:
- a) f
b) $2f$
c) $4f$
d) $f/2$
30. The regulation of alternator is negative when:
- a) Load PF is leading
b) Load PF is lagging
c) Load is resistive
d) None
31. IGBT combines the features of:
- a) BJT and MOSFET
b) SCR and MOSFET
c) BJT and SCR
d) Diode and MOSFET
32. The main purpose of FACTS devices (like STATCOM) is to:
- a) Improve steady state stability
b) Reduce transmission losses



- c) Increase frequency
d) Provide backup protection
33. The unit of reluctance is:
a) AT/Wb
b) Wb/AT
c) AT/m
d) Wb
34. In class-B commutation of SCR, the commutating capacitor is:
a) pre-charged
b) Charged by load current
c) Charged by gate current
d) Not charged
35. The typical insulation resistance for shipboard cables should not fall below:
a) 0.5 MΩ
b) 1 MΩ
c) 2 MΩ
d) 10 MΩ
36. The bridge used for measurement of dielectric loss angle is:
a) Schering bridge
b) Maxwell's bridge
c) Wien bridge
d) Anderson bridge
37. Which international convention governs ship electrical safety?
a) MARPOL
b) SOLAS



- c) STCW
d) ISPS
38. During generator paralleling onboard, incorrect phase sequence leads to:
- a) Hunting
 - ☒ b) High circulating current
 - c) Reverse power trip
 - d) Instant blackout
39. Fire in ship electrical cables is minimized by using:
- a) XLPE insulation
 - b) EPR insulation
 - ☒ c) LSZH cables
 - d) Rubber sheathed cables
40. For marine cables, the insulation resistance decreases primarily with:
- a) Increase in load current
 - b) Increase in cable length
 - ☒ c) Decrease in temperature
 - d) Frequency variation
41. The most common type of circuit breaker in shipboard HT systems is:
- a) Oil circuit breaker
 - b) SF₆ circuit breaker
 - ☒ c) Air-blast circuit breaker
 - d) Vacuum circuit breaker
42. A Zener diode in ship battery charger is used for:
- a) Rectification
 - ☒ b) Voltage regulation



- c) Current limiting
d) Power factor correction
43. Which transistor configuration offers the highest input impedance?
a) Common base
b) Common emitter
☒ c) Common collector
d) Cascade
44. According to IEC 60092, minimum insulation resistance of new shipboard 440 V circuits (measured at 500 V DC) should be at least:
☒ a) 0.5 M Ω
b) 1 M Ω
c) 2 M Ω
d) 10 M Ω
45. In SCADA for ship power management, RTUs are primarily responsible for:
a) Data acquisition and communication
b) User interface
☒ c) Centralized control
d) Alarm generation only
46. The firing angle control of a thyristor is used to regulate:
a) Current
b) Voltage & power
c) Resistance
☒ d) Torque
47. An inclinometer in ships measures:
☒ a) Pitch & roll angle



- b) Speed
c) Frequency
d) Power
48. Main material of marine cable sheathing is:
a) Lead
✓ b) Tinned copper braid
c) Aluminium
d) Galvanized steel
49. In magnetic circuits of ship alternators, leakage flux is reduced by:
✓ a) Laminating the core
b) Using higher frequency
c) Increasing winding resistance
d) Using solid steel
50. The main reason for isolation transformers in ship power systems is:
a) Efficiency improvement
✓ b) Protection from hull earth faults
c) Voltage regulation
d) Load sharing
51. A single-phase transformer has resistance and reactance of 0.2 p.u and 0.6 p.u respectively. Its p.u voltage regulation at 0.8 p.f lagging would be
✓ a) 0.52
b) 0.42
c) 0.62
d) 0.36



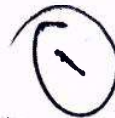
52. Auto reclosing is used in case of

- ☒ a) Lightning arrester
- b) Bulk oil C.B
- c) Air blast C.B
- d) Minimum oil C.B



53. Kirchhoff's current law is based on the law of

- a) Conservation of energy
- ☒ b) Conservation of charge
- c) Conservation of momentum
- d) Conservation of mass



54. The name plate of a 3-phase induction motor reads as

$V = 400\text{ V}$ $\text{hp} = 5$ $f = 50\text{ Hz}$

$I = 15\text{ A}$ $\text{Con} - \Delta$ $N = 54\text{ rpm}$

The number of poles for which stator winding is wound

- a) 10
- ☒ b) 12
- c) 14
- d) 16



55. In relation to synchronous machines, which one is false?

- ☒ a) In salient pole machines, the direct-axis synchronous reactance is greater than the quadrature-axis synchronous reactance.
- b) The damper bars help the synchronous motor self-start.
- c) Short-circuit ratio is the ratio of the field current required to produce the rated voltage on open circuit to the rated armature current.



- d) The V-curve of a synchronous motor represents the variation in the armature current with field excitation, at given output power.
56. Two wattmeters, which are connected to measure the total power on a three-phase system supplying a balanced load, read 10.5 kW and - 2.5 kW, respectively. The total power and the power factor, respectively, are
- a) 13.0 kW, 0.334
 - b) 13.0 kW, 0.684
 - ☒ c) 8.0 kW, 0.52
 - d) 8.0 kW, 0.334
57. The Q-meter works on the principle of
- ☒ a) mutual inductance
 - b) self-inductance
 - c) series resonance
 - d) parallel resonance
58. The armature of a dc machine is laminated to reduce
- a) Copper loss
 - ☒ b) Eddy Current loss
 - c) Friction loss
 - d) Windage loss
59. Three resistances of R ohms each are connected in delta. Its equivalent resistances in star connection per phase is
- ☒ a) $R/3$ each
 - b) R each
 - c) 3R each
 - d) 3R, R & $R/3$



60. Which of the following Transformers should never have the secondary open circuited while the primary is energized?
- a) Power Transformer
 - b) Potential Transformer
 - ☒ c) Current Transformer
 - d) Auto Transformer
61. The crawling in an induction motor is caused by
- a) High loads
 - b) Low supply voltages
 - c) Improper design of machine
 - ☒ d) Harmonics developed in the motor
62. Under no load conditions the current in a transmission line is due to
- a) Corona effect
 - ☒ b) Capacitance of the line
 - c) Spinning reserve
 - d) Back flow from earth
63. For a distributor design, if the voltage rating is increased by 'n' times, the conductor size reduces to ___ of the original
- a) $1/n$
 - ☒ b) $1/n^2$
 - c) $1/n^4$
 - d) $1/2n$
64. The electric heater draws 10A from a 230V line. The resistance of the heater is
- a) 230 Ohms
 - b) 2300 Ohms
 - ☒ c) 23 Ohms
 - d) 2.3 Ohms



65. The illumination at a surface due to source of light placed at a distance 'd' from the surface varies
- ☒ a) $1/d^2$
 - ☐ b) $1/d$
 - ☐ c) d
 - ☐ d) d^2
66. Power factor is the highest in case of
- ☐ a) Sodium vapour lamp
 - ☒ b) Mercury vapour lamp
 - ☐ c) Incandescent lamp
 - ☐ d) Neon lamp
67. In carbon arc welding
- ☒ a) Electrode is positive with respect to work in case of dc supply
 - ☐ b) Electrode is negative with respect to work in case of dc supply
 - ☐ c) Electrode is connected to neutral in case of ac supply
 - ☐ d) Electrodes are not required
68. A 4 point starter is used to start and control the speed of a
- ☒ a) DC shunt motor with armature resistance control
 - ☐ b) DC shunt motor with field weakening control
 - ☐ c) DC series motor
 - ☐ d) Thyristor controlled dc motor
69. The rated voltage of a 3-phase power system is given as
- ☐ a) RMS phase voltage
 - ☐ b) Peak phase voltage
 - ☒ c) RMS line to line voltage
 - ☐ d) Peak line to line voltage



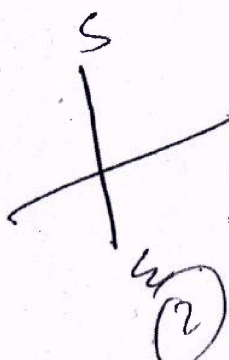
70. Two incandescent light bulbs of 40W and 60W rating are connected in series across the mains, then

- a) The bulbs together consume 100W
- b) The bulbs together consume 50W
- c) The 60W bulb glows brighter
- ✓ d) The 40W bulb glow brighter





	1
	8
	15
	22
_____	29 -
36	30 Tues
48	31 1 - wed
	38 8 - wed
	45 15 - wed.


 wrong answer.



$$0.2 \times 0.8 + 0.6 \times 0.6$$

$$= 0.16 + 0.36$$

$$= 0.52$$

$\frac{42}{100} \times 100 = 42$
 $\frac{54}{100} \times 100 = 54$
 $\frac{9}{100} \times 100 = 9$
 $\frac{11}{100} \times 100 = 11$
 $\frac{18}{100} \times 100 = 18$
 $\frac{27}{100} \times 100 = 27$
 $\frac{38.6}{100} \times 100 = 38.6$

$$120 \div 54 = 2.22$$

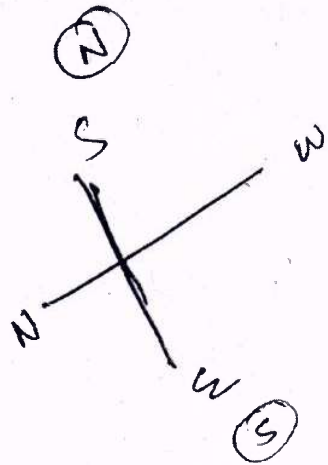
$$2(a+b) = 50$$

$$2(15+b) = 50$$

$$15+b = 25$$

$$b = 10$$

1 monkey
 8 made
 15
 5
 6
 2
 8



$$10.5 - 8 = 2.5$$

$$\frac{2.5}{3} = 0.83$$

$$x = 2x$$

$$x+10 = 2x+10$$

$$(x+10) = 2x$$

$$\frac{6}{12} \times 50 = 25$$

$$\frac{27}{100} \times 100 = 27$$

$$IR = \frac{230 \times 10}{100} = 23$$

$$200 \div 3 = 66.67$$

$$\frac{10}{30} \times 100 = 33.33$$

$$\frac{v2}{\pi} = P$$

$$20\% \times \frac{230 \times 230}{230} = 20$$

$$600$$

$$\frac{80 \times 100}{100} = 80$$





कोचीन शिपयार्ड लिमिटेड / COCHIN SHIPYARD LIMITED

भारत सरकार की श्रेणी - 1 मिनिरल कंपनी / A Government of India Category-I Miniratna Company

पत्तन, पोत परिवहन और जलमार्ग मंत्रालय / Ministry of Ports, Shipping and Waterways

(सीएसएल- ए.एन पोत मरम्मत यूनिट(सी.ए.एन.एस.आर.यू), श्री विजय पुरम -744 101

CSL-AN Ship Repair Unit (CANSRU), Sri Vijaya Puram - 744 101

CANDIDATE NO. EL007

Marks Obtained : MARKS

-15½-

Maximum Marks : 30 MARKS

SIGNATURE

: 26/09/2025

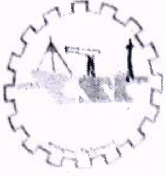
NAME

:

DESIGNATION

: MANAGER (ELECTRICAL)





कोचीन शिपयार्ड लिमिटेड / COCHIN SHIPYARD LIMITED

भारत सरकार की श्रेणी - 1 मिनिरात कंपनी / A Government of India Category-I Miniratna Company
पत्तन, पोत परिवहन और जलमार्ग मंत्रालय / Ministry of Ports, Shipping and Waterways

सीएसएल- ए.एन पोत मरम्मत यूनिट (सीएसएनएसआरयू), श्री विजय पुरम - 744 101
CSL-AN Ship Repair Unit (CANSRU), Sri Vijaya Puram - 744 101

DESCRIPTIVE TYPE WRITTEN TEST TO THE POST OF
JUNIOR TECHNICAL ASSISTANT (ELECTRICAL) FOR CANSRU

Date: 18/07/2022

DURATION OF THE TEST : 60 Minutes
MAXIMUM MARKS : 30 Marks

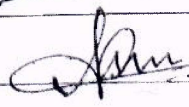
DO NOT OPEN THIS QUESTION PAPER BOOKLET UNTIL ASKED TO DO SO

GENERAL INSTRUCTIONS

1. **ANSWER ALL QUESTIONS.** There shall be no negative marks.
2. **Answers are to be written in the ANSWER SHEETS provide using BALL POINT PEN.**
3. Rough work, if any, is to be done in the ROUGH WORK SHEET provided only.
4. **Calculators, Mobile, Electronic items etc., are not permitted inside the examination hall.**
5. Candidates seeking, receiving and /or giving assistance during the test will be disqualified.
6. The right to exclude any question (s) from final evaluation rests with CSL.
7. Do not seek any clarification on any item in the Question Booklet. Use your judgment.



Please fill in the following details using ball point pen.

Name of Candidate	
Registration No.	50830466
Name of Post	JUNIOR TECHNICAL ASSISTANT (ELECTRICAL)
Signature of candidate	
Signature of invigilator	

**THIS QUESTION PAPER BOOKLET SHOULD BE HANDED OVER
TO THE INVIGILATOR ON COMPLETION OF THE TEST**



PHASE II

**DESCRIPTIVE TYPE ONLINE TEST
JUNIOR TECHNICAL ASSISTANT (ELECTRICAL)
(TOTAL 30 MARKS)**

1. Write short note about the following:

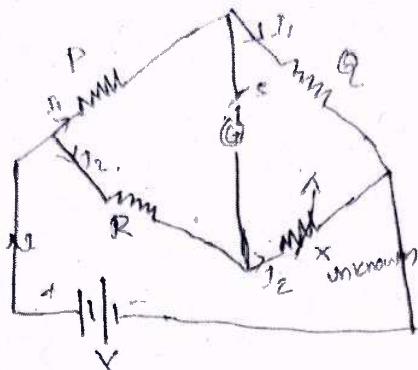
(5 Marks)

a) Difference between Moving coil and Moving iron instruments (5 points minimum)

- ① moving iron instrument has scalar scale.
- ② moving coil instrument have scalar scale.
- ③ moving Iron instrument measure both AC and DC quantities.
- ④ moving coil instrument measure only DC quantities.
- ⑤ moving iron instrument torque is proportional to square of the current $T \propto I^2$
- ⑥ moving ~~coil~~ instrument $T \propto I$.
- ⑦ mc instrument have high torque/weight
- ⑧ mi instrument have less torque/weight
- ⑨ mc instrument accuracy is good.
- ⑩ mi instrument accuracy less than mc instrument



b) Explain about the Wheatstone Bridge principle (with circuit diagram and equation)



Wheatstone Bridge have four arms which have four resistors. It is used to measure unknown resistance at balanced condition galvanometer reads zero at that time. Current I_1 flows in P & Q and I_2 follows in R & X then we can solve the equation

$$I_1(P+Q) = I_2(R+X)$$

$$P/Q = R/X$$

$$PX = RQ$$

Product of opposite arms are equal

So unknown resistance we can find

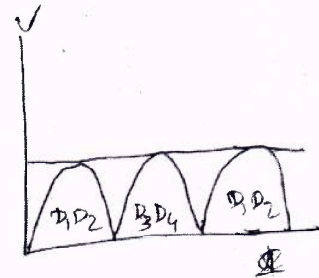
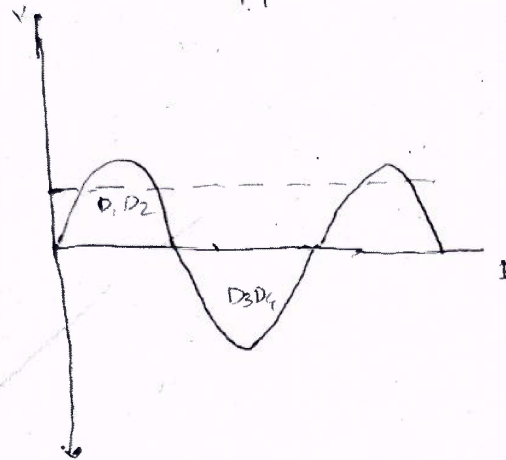
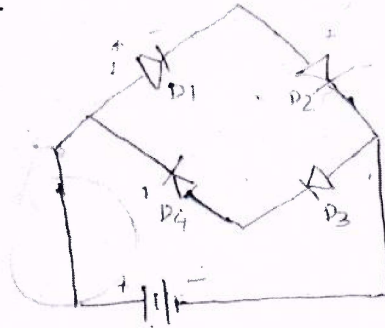
the equation

$$X = \frac{RQ}{P}$$



2. Write short note about the following:

a) Explain about full wave rectifier with circuit diagram and Voltage, Current, Time graph. (3 Marks)



During the 1st half cycle, diode D_1, D_2 are forward biased condition at that time D_3, D_4 are reversed biased so 1st half cycle we get conduction occur in D_1, D_2 and 2nd half cycle diode D_3, D_4 are forward biased conduction takes place in that diode only so we get a DC output voltage



b) Short note about internet protocol (IP).

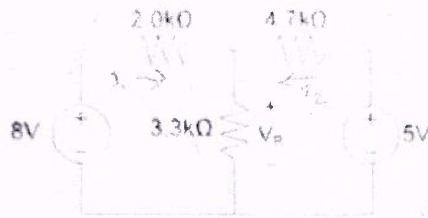
(2 Marks)

IP is used to security issue. in a network ~~different system~~ so many system is there. every system have different IP for security problems. and if we know the IP of that system we can control that system in anywhere.

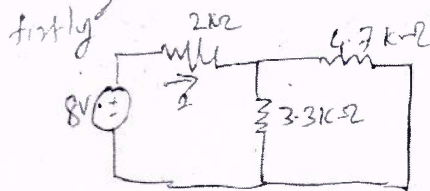


3. Explain about the Superposition theorem.
What's the voltage drop across 3.3Kohm?

(5 Marks)



In a linear bilateral circuit contains more than one electrical sources, the resultant emf is calculated by all independent current source is replaced by open circuit and all independent voltage source is replaced by short circuit.

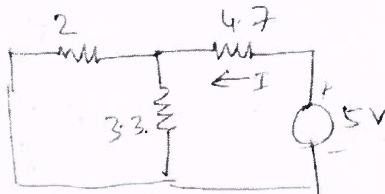


$$4.7k\Omega \parallel 3.3k\Omega$$

$$\frac{4.7 \times 3.3}{8} =$$

$$\text{total resistance } R_1 = 2 + \frac{4.7 \times 3.3}{8}$$

$$= \frac{16 + 4.7 \times 3.3}{8}$$



$$I = \frac{V}{R}$$

$$= \frac{5}{\frac{16 + 4.7 \times 3.3}{8}}$$

$$= \frac{64}{16 + 4.7 \times 3.3}$$

$$\text{Total resistance} = (4.7 + 3.3) \parallel 2$$

$$= \frac{8 \times 2}{10} = \frac{16}{10} = 1.6k\Omega$$

$$I = \frac{V}{R} = \frac{5}{1.6}$$

Voltage across 3.3kΩ resistor is $\frac{5}{1.6} \times 3.3k\Omega = \frac{5 \times 3.3}{1.6} = 10.31V$

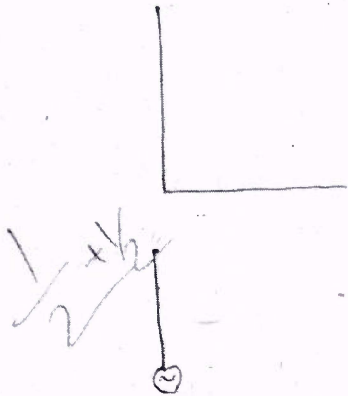


4. Explain about the step-by-step procedure for the overhauling of Motor or Alternator. What's the minimum megger value for the 500Volt overhauled motor as per IEEE standard. (5 Marks)

minimum megger value is ~~1~~ 100



5. Explain the OCC and SCC of synchronous generator with circuit diagram and graph. (5 Marks)



OCC test is used to determine No load loss and SCC test is used to determine ~~cu loss~~ copper loss.



6. Basic principle of circuit breaker. Comparison between VCB and SF₆ Circuit Breaker. (5 Marks)

circuit breaker is ~~an~~ circuit interruption device when short circuit or over current occurs the circuit breaker opens the line automatically by using relay principle.

VCB

- * Vacuum is used as the arc quenching medium
- * Less costly than SF₆ circuit breaker
- * used in a medium voltage
- * sound is high
- * ~~more~~ ~~speed~~ time
- * arc quenching is ~~fast~~
- * No pollution

SF₆ circuit breaker

- * SF₆ gas is used as arc quenching medium
- * costly. SF₆ gas is costly
- * high voltage
- * sound is less
- * less time than VCB
- * SF₆ gas high arc quenching property
- * arc quenching is fast
- * no pollution

