

4 ★ RR(B)/300/4492

B

Question Paper Serial No. **300**

ಒಟ್ಟು ಮುದ್ರಿತ ಪುಟಗಳ ಸಂಖ್ಯೆ : 8]

Total No. of Printed Pages : 8]

ಒಟ್ಟು ಪ್ರಶ್ನೆಗಳ ಸಂಖ್ಯೆ : 10]

Total No. of Questions : 10]

**CCE RR
UNREVISED
REDUCED SYLLABUS**

ಸಂಕೇತ ಸಂಖ್ಯೆ : **71**

Code No. : **71**

ವಿಷಯ : ಎಲಿಮೆಂಟ್ಸ್ ಆಫ್ ಮೆಕ್ಯಾನಿಕಲ್ ಅಂಡ್

ಎಲೆಕ್ಟ್ರಿಕಲ್ ಇಂಜಿನಿಯರಿಂಗ್ - 2

**Subject : ELEMENTS OF MECHANICAL AND
ELECTRICAL ENGINEERING-2**

(ಪುನರಾವರ್ತಿತ ಶಾಲಾ ಅಭ್ಯರ್ಥಿ / Regular Repeater)

ದಿನಾಂಕ : 08. 04. 2023]

[Date : 08. 04. 2023

ಸಮಯ : ಬೆಳಿಗ್ಗೆ 10-30 ರಿಂದ ಮಧ್ಯಾಹ್ನ-1-45 ರವರೆಗೆ] [Time : 10-30 A.M. to 1-45 P.M.

ಪರಮಾವಧಿ ಅಂಕಗಳು : 100]

[Max. Marks : 100

General Instructions to the Candidate :

1. This Question Paper consists of 10 subjective types of questions.
2. This question paper has been sealed by reverse jacket. You have to cut on the right side to open the paper at the time of commencement of the examination. Check whether all the pages of the question paper are intact.
3. Follow the instructions given against both the objective and subjective types of questions.
4. Figures in the right hand margin indicate maximum marks.
5. The maximum time to answer the paper is given at the top of the question paper. It includes 15 minutes for reading the question paper.

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ಇಲ್ಲಿಂದ ಕತ್ತರಿಸಿ

TEAR HERE TO OPEN THE QUESTION PAPER

ಪ್ರಶ್ನೆ-ಪತ್ರಿಕೆಯನ್ನು ತೆರೆದುಕೊಳ್ಳಲು ಇಲ್ಲಿ ಕತ್ತರಿಸಿ

Tear here

Note : Answer questions from Sections **A** & **B** as per the instructions given under them.

SECTION – A

Note : Answer *all* the questions.

1. a) Classify the I.C. engine on the method of cooling. 2
- b) Differentiate between I.C. engine and E.C. engine. 3
- c) Draw a neat sketch of two-stroke petrol engine and label the parts. 5
2. a) Write the classifications of air compressor. 2
- b) List the uses of air compressor. 3

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|----|------------------|--|--------|----|
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| | c) | Draw a neat sketch of reciprocating air compressor and label the parts. | | 5 |
| 3. | a) | List the properties of good refrigerent. | | 2 |
| | b) | List the parts of a refrigerator. | | 3 |
| | c) | Draw a neat sketch of vapour compression refrigerator and label the parts. | | 5 |
| 4. | a) | Explain central air conditioning. | | 2 |
| | b) | Explain reciprocating air compressor. | | 3 |
| | c) | Draw a neat sketch of air conditioner and label the parts. | | 5 |
| 5. | a) | Explain taper turning operation. | | 2 |

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b) Explain the functions of the following lathe parts :

i) Bed

ii) Lead screw.

3

c) Draw a neat sketch of tail stock and label the parts.

5

OR

a) What is drilling ?

2

b) Mention the types of drilling machine.

3

c) With a neat sketch explain reaming operation.

5

6. a) List the parts of an I.C. engine.

2

b) Explain the working stroke of four-stroke diesel engine.

3

c) With a neat sketch explain knurling operation carried out on a lathe.

5

SECTION - B

Note : Answer all the questions.

7. a) Define mutually induced *e.m.f.* 2
- b) How do you classify induced *e.m.f.* 3
- c) Draw a neat diagram of electromagnetic induction and label the parts. 5
8. a) Define frequency. 2
- b) Explain the terms power and power factor. 3
- c) Draw a neat diagram of *ac* sine wave curve and mark amplitude and time period on it. 5

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9.	a)	List the main parts of electric fan.		2
	b)	Write a short note on thermostat.		3
	c)	Draw neat diagrams of forward and reverse bias of a diode.		5

OR

	a)	Define rectifier.		2
	b)	List the applications of diode.		3
	c)	Draw a neat diagram of an electric stove.		5
10.	a)	Give examples for statically and dynamically induced <i>e.m.f.</i>		2

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	b)	State Faradays laws of electromagnetic induction.		3
	c)	Draw a neat diagram of statically induced <i>e.m.f.</i>		5



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