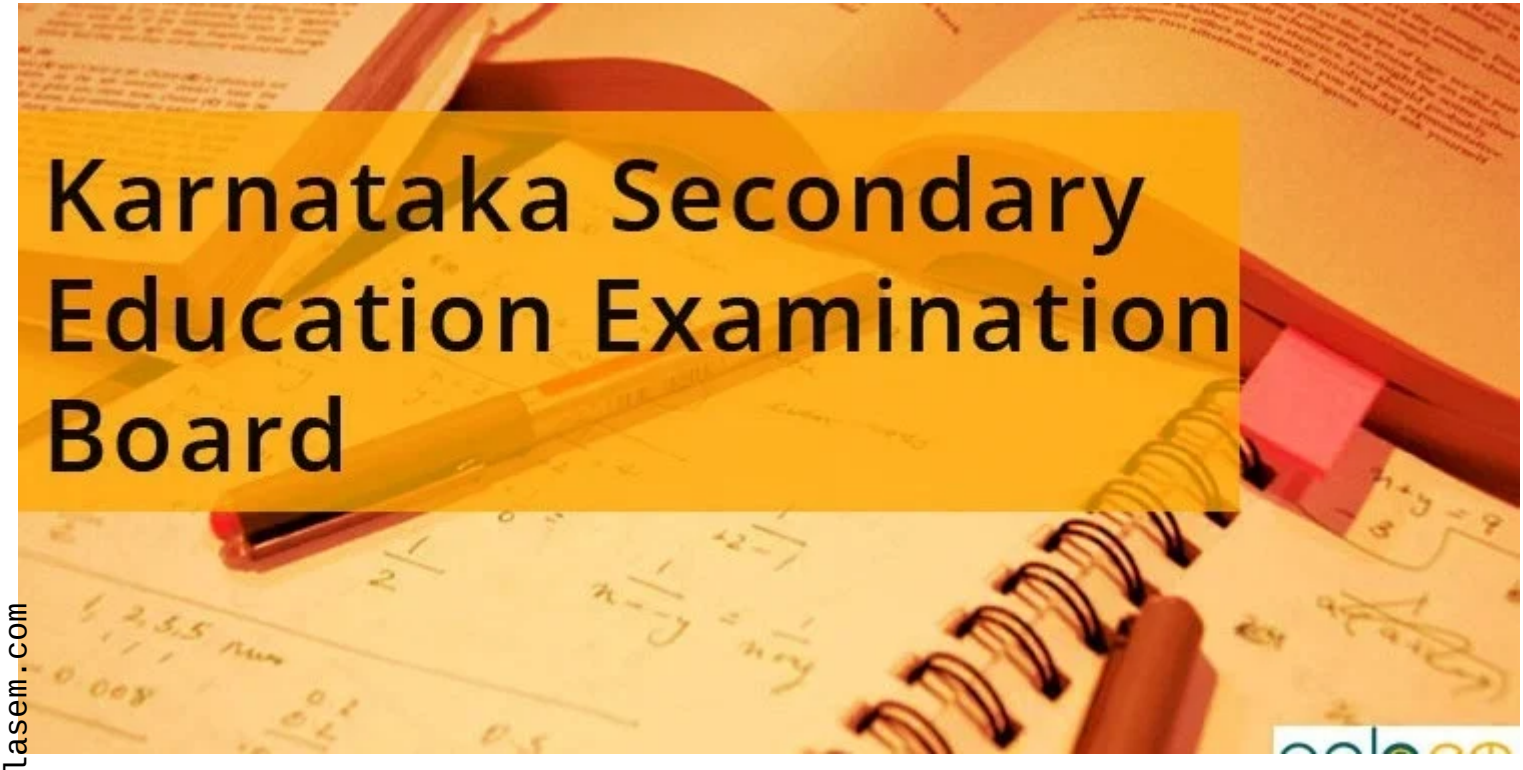
Question Paper 2022



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ಒಟ್ಟು ಮುದ್ರಿತ ಪುಟಗಳ ಸಂಖ್ಯೆ : 8]
Total No. of Printed Pages : 8]
ಒಟ್ಟು ಪ್ರಶ್ನೆಗಳ ಸಂಖ್ಯೆ : 10]
Total No. of Questions : 10]

A

CCE RF
CCE RR

Question Paper Serial No. **101**

ಪ್ರಶ್ನೆ ಪತ್ರಿಕೆಯ ಸರಣಿ ಸಂಖ್ಯೆ

ಸಂಕೇತ ಸಂಖ್ಯೆ : 71

Code No. : 71

ವಿಷಯ : ಎಲಿಮೆಂಟ್ಸ್ ಆಫ್ ಮೆಕ್ಯಾನಿಕಲ್ ಅಂಡ್ ಎಲೆಕ್ಟ್ರಿಕಲ್ ಇಂಜಿನಿಯರಿಂಗ್ - 2

Subject : ELEMENTS OF MECHANICAL AND ELECTRICAL ENGINEERING-2

(ಶಾಲಾ ಅಭ್ಯರ್ಥಿ & ಪುನರಾವರ್ತಿತ ಶಾಲಾ ಅಭ್ಯರ್ಥಿ/ Regular Fresh & Regular Repeater)

ದಿನಾಂಕ : 01. 04. 2022] [Date : 01. 04. 2022

ಸಮಯ : ಬೆಳಗ್ಗೆ 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.

TEAR HERE TO OPEN THE QUESTION PAPER
ಪ್ರಶ್ನೆ-ಪತ್ರಿಕೆಯನ್ನು ತೆರೆಯಲು 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) Define I.C. engine. 2

b) Mention the parts of IC engine. 3

c) Differentiate between petrol engine and diesel engine. 5

2. a) What is an air compressor ? 2

b) How are the air compressors classified ? 3

c) Draw a neat sketch of reciprocating air compressor and label the parts. 5

3. a) What is refrigeration ? 2

b) Mention the applications of air-conditioning. 3

c) Draw a neat sketch of refrigeration system and label the parts. 5

4. a) List the types of refrigerants. 2

b) Mention the uses of air compressor. 3

c) Draw a neat sketch of summer air-conditioning system and label the parts. 5

5. a) What is the main function of lathe ? 2

b) Write the types of lathes. 3

c) Draw a neat sketch of lathe and label the parts. 5

OR

a) What is drilling ? 2

b) Write the types of drilling machines. 3

c) With a neat sketch explain reaming operation. 5

6. a) Classify the IC engines according to the types of Ignition. 2

b) Write a short note on connecting rod. 3

c) With a neat sketch explain the operation of plain turning. 5

SECTION – B

Note : Answer *all* the questions.

7. a) List the types of induced *e.m.f.* 2

b) State Faraday's second law of electromagnetic induction. 3

c) Draw a neat sketch of self-induced *e.m.f.* and label the parts. 5

8. a) Define the term 'maximum value'. 2

b) Explain power and power factor. 3

c) Draw a neat sketch of sine wave and mark the following : 5

i) Time period

ii) Cycle.

9. a) List the types of statically induced *e.m.f.* 2

b) Describe dynamically induced *e.m.f.* 3

c) Draw a neat sketch of electromagnetic induction and label the parts. 5

OR

a) Define the term 'form factor'. 2

b) Compare *rms* value and average value. 3

c) Draw the diagram of dynamically induced *e.m.f.* and label the parts. 5

10. a) What do you mean by thermostat ? 2

b) Explain Forward bias. 3

c) Draw a neat diagram of an electric iron and label the parts. 5