

S. B. Roll. No.....

REFRIGERATION AND AIR CONDITIONING
5th Exam/Mech./6853/Feb'2021
(For 2018 batch onwards)

Duration: 1.15Hrs.

M.Marks:25

SECTION-A

Q1. Attempt any three questions.

3x5=15

- i. Define moist air, wet bulb depression and dew point temperature.
- ii. Discuss the functions of condenser in a refrigeration system.
- iii. Explain the effect of discharge pressure on the performance of vapour compression system.
- iv. List various factors affecting optimum effective temperature.
- v. Write the advantages of vapour absorption system over vapour compression system.
- vi. Differentiate between water-cooled and air-cooled condenser.
- vii. Write the properties of ideal refrigerant.
- viii. Discuss the various sources of heat load.

SECTION-B

Q2. Attempt any one question.

1x10=10

- a. Draw labeled psychrometric chart and explain briefly.
- b. Draw a neat diagram of simple ammonia absorption refrigeration system and explain its working.
- c. Explain the working of automatic expansion valve with the help of neat sketch.
- d. Describe Bell Coleman air cycle and obtain an expression for COP of the cycle.