

Roll No.

Total No. of Pages : 02

Total No. of Questions : 09

B.Voc. (AS) (Sem.-6)

OFF ROAD VEHICLES

Subject Code : 7.GV.07

M.Code : 91635

Date of Examination : 08-07-22

Time : 3 Hrs.

Max. Marks : 30

INSTRUCTIONS TO CANDIDATES :

1. **SECTION-A is COMPULSORY** consisting of **TEN** questions carrying **ONE** mark each.
2. **SECTION-B** contains **FIVE** questions carrying **2½** (Two and Half) marks each and students has to attempt any **FOUR** questions.
3. **SECTION-C** contains **THREE** questions carrying **FIVE** marks each and students has to attempt any **TWO** questions.

SECTION-A

1. Write short notes on :

- (a) Explain various requirements of Off-road vehicles.
- (b) Give significances of different earth moving equipment's.
- (c) What are Dump trucks?
- (d) Define rated cone index factor.
- (e) Discuss various kinematics of loader.
- (f) Explain the purpose farm equipment's and tractors.
- (g) Define Mobility Index.
- (h) Discuss various safety-warning systems for dumpers.
- (i) Give the general description of light-wheeled tractors.
- (j) What is the use of scrappers as farm equipment?

SECTION-B

2. Discuss simple problems and merits/demerits associated with heavy wheeled tractors.
3. Discuss the power take off and special features of gun carriers.
4. Write a short note on power steering system of combat vehicles.
5. Discuss with suitable diagram hydro-pneumatic suspension cylinders.
6. Discuss the classification and application of off-road machines.

SECTION-C

7. What are bulldozers and discuss their applications with respect to tilt and angle dozers?
8. Explain various design aspects of dumper body and loader bucket.
9. Explain various characteristics of soils with respect to vehicle evaluation mobility.