

B.E DEGREE EXAMINATIONS: NOV/DEC 2014

(Regulation 2009)

Seventh Semester.

AUTOMOBILE ENGINEERING

AUE 119: Off Road Vehicles

Time: Three Hours

Maximum Marks: 100

Answer all the Questions:-

PART A (10 x 1 = 10 Marks)

1. Operation sequence of an excavators
 - a) Digging, swinging to dump, dumping, swinging back to dig
 - b) swinging to dump, swinging back to dig, dumping, digging
 - c) swinging back to dig, dumping, swinging to dump, digging
 - d) dumping, digging, swinging to dump, swinging back to dig.
2. When turning off road vehicle in sand, you should:
 - a) Wide turn
 - b) Sharp turn
 - c) not turn
 - d) Lock the wheel
3. Scrapper are otherwise called as _____
 - a) Scrapper
 - b) Dumper
 - c) Dozer
 - d) Crawler
4. Tilt type of dozers is used to push its load at an angle nearly _____deg to the direction of travel of the dozer
 - a) 25
 - b) 45
 - c) 90
 - d) 125
5. Primary function of a _____ is to retain the soil it excavates and push it in front to a soil heap, the blade is taller than that of the angle dozer and normally has webs on its vertical edges to assist in preventing the soil from spilling away at the sides.
 - a) Bulldozer
 - b) Tilt dozer
 - c) Angle dozer
 - d) Dumper
6. Sequence of operations of a scraper is
 - a) Travelling, Spreading, Cutting
 - b) Cutting , Travelling, Spreading

(OR)

- b) (i) What are the different types of dozers? (4)
(ii) Explain any one type of dozers in detail with a neat sketch. (10)

23. a) What are the different types of graders? Explain motor grader with a neat sketch.

(OR)

b) With a neat sketch explain the sequence of operation in cutting a Vee ditch.

24. a) (i) What are the different types of tankers? (4)
(ii) Explain the construction details of tankers with a neat sketch. (10)

(OR)

b) Explain the following (1) Draw bar (2) Power take off (3) Power lift (4) Agriculture implements

25. a) With the help of a neat sketch explain the construction of Hydro-pneumatic suspension system.

(OR)

b) Explain in detail on safety features and safety warning system of a dumper truck .
