

Reg No.: _____

Name: _____

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY

Seventh Semester B.Tech Degree Examination (Regular and Supplementary), December 2020

Course Code: AU469**Course Name: EARTH MOVING EQUIPMENT**

Max. Marks: 100

Duration: 3 Hours

PART A*Answer any three full questions, each carries 10 marks.*

Marks

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| 1 | a) | How the earth moving equipments are classified? | (5) |
| | b) | Plot and explain the relation between rim pull and speed for a typical earth moving equipment. | (5) |
| 2 | a) | With the help of a neat sketch explain the constructional details of the air filters used in earth moving equipments. | (5) |
| | b) | Differentiate between rippability and tractive resistance. | (5) |
| 3 | a) | What are the different types of types of engines used in earth moving equipments? | (5) |
| | b) | With the aid of a neat sketch explain the constructional details of brush cutter. | (5) |
| 4 | a) | Discuss about the details of chassis and transmission systems used in earth moving equipments. | (5) |
| | b) | Explain the details and functions of a land leveller. | (5) |

PART B*Answer any three full questions, each carries 10 marks.*

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| 5 | a) | Describe constructional details and working of crawler tractor with the help of a neat sketch | (10) |
| 6 | a) | Write a short note on use of scraper as a construction equipment. | (5) |
| | b) | What do you understand by payload and rolling resistance? | (5) |
| 7 | a) | With the aid of a neat sketch discuss the constructional details of dump trucks | (5) |
| | b) | Discuss how the output of a loader is calculated. | (5) |
| 8 | a) | Describe constructional details and working of a loader with the help of a neat sketch | (10) |

PART C*Answer any four full questions, each carries 10 marks.*

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| 9 | a) | Draw a neat sketch of bulldozers and name the parts and explain the functions of each part. | (10) |
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- 10 a) What is drag lines? Discuss its operation. (5)
b) Describe the construction, working and application of tower crane. (5)
- 11 a) What is ditchers? Discuss its operation. (5)
b) With a neat sketch explain the working of man lifting mechanism. (5)
- 12 a) Mention the factors affect the production and performance of a shovels. (5)
b) Explain the operation of a tree dozer. (5)
- 13 a) Explain the operation of a ripper with a neat sketch. (5)
b) What is meant by gantry crane? (5)
- 14 a) With the help of a neat sketch explain the constructional details of dipper or power shovel. (10)
