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**Total No. of Pages: 01**  
**Total No. of Questions: 09****B. Tech.(AE) (Sem.-7<sup>th</sup> & 8<sup>th</sup>)**  
**SPECIAL PURPOSE VEHICLE****Subject Code: AE-410****Paper ID: [A0728]****Time: 3 Hrs.****Max. Marks: 60****INSTRUCTIONS TO CANDIDATE:**

- (i) *Section –A, is Compulsory.*  
(ii) *Attempt any four questions from Section-B.*  
(iii) *Attempt any two questions from Section-C.*

**SECTION A**1. Write briefly: **(2x10=20)**

- a) What is the special purpose vehicle? Write down its applications.
- b) Write down the function of lubrication.
- c) What is draw bar?
- d) What is the function of excavator?
- e) Explain the function of shovels.
- f) What is final drive?
- g) Explain the steering system of tractor.
- h) What are multi axle vehicle?
- i) What is the function of mobile crane?
- j) What is PTO shaft?

**SECTION- B****(4x5=20)**

2. Differentiate between wheel type and track type special purpose vehicle.
3. Explain the braking system of any special purpose vehicle.
4. Discuss the pneumatic control system of any special purpose vehicle.
5. Explain the safety devices of mobile cranes.
6. What are the different auxiliary systems employed in the tractor

**SECTION- C****(2x10=20)**

7. Explain the steering system of a form tractor.
8. Write a note on tracked vehicle.
9. Discuss the construction and working feature of dozer.

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