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**Diploma in Electrical & Mechanical
Engineering**

Term-End Examination

June, 2010

**BET-045 : CONSTRUCTION PLANTS/
EARTH MOVING PLANTS/MECHANICAL
TRANSPORT**

Time : 2 hours

Maximum Marks : 70

Note : Out of the seven questions, only five questions have to be answered. Question number 1 is compulsory. All questions carry equal marks.

1. Fill in the blanks : 7x2=14

- (a) _____ have compaction action due to kneading. (Sheep Feet Roller/Vibratory Roller)
- (b) _____ is measured in terms of dry density. (Compaction/Consolidation)
- (c) Rotary pumps fall under the classification of _____. (Positive Displacement/Rotodynamic)
- (d) _____ type of crushers receive the stone directly from the quarry. (Primary/Secondary)

- (e) Asphalt is a mixture of _____.
(Bitumen and Inert material, Bitumen and Chemical)
- (f) The Major Head 2078 Defence services pertains to the _____ (Navy/Airforce)
- (g) _____ are used for compacting fine grained soil. (Pneumatic type/Vibratory Roller)
2. (a) What do you mean by trouble shooting ? 7
Discuss the various trouble shootings on account of clutch and engine.
- (b) What checks on the equipment are to be carried out before starting the work and before closing the work. 7
3. What do you understand by air compressor ? 14
Discuss briefly the various type of compressors.
4. (a) What is a centrifugal pump ? Discuss its applications ? 7
- (b) What factors will you consider while selecting a centrifugal pump ? 7
5. Discuss briefly the various functions/operations of :
- (a) Dozer 7
- (b) Motor Grader 7

6. (a) Discuss briefly any two systems of an Earth moving plant. 7
- (b) Discuss what is lubrication system ? Why is it necessary ? Discuss the components of a Pressure Time-Governor controlled (PTG) Fuel system ? 7
7. Discuss *any four* of the following : $4 \times 3\frac{1}{2} = 14$
- (a) Plant Installation running record.
- (b) Machine History Sheet.
- (c) Fan and Meter Register.
- (d) Plant Record book.
- (e) Driver's car diary.
- (f) Vehicle log book.
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