

17623

21415

3 Hours / 100 Marks

Seat No.

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- Instructions* – (1) All Questions are *Compulsory*.
- (2) Answers each next main Question on a new page.
- (3) Illustrate your answers with neat sketches wherever necessary.
- (4) Figures to the right indicate full marks.
- (5) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

Marks

- 1. Attempt any FIVE of the following: **20****
- a) Write precautions in handling and storing of Natural fibre ropes.
- b) Write merits and demerits of slings.
- c) What is the use of spreader bar.
- d) Describe the operation of differential hoist.
- e) Compare personal injury and property damage accidents.
- f) List the causes of accidents.
- g) Describe steps in erection costing.

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- 2. Attempt any FOUR of the following:** **16**
- a) What are the features of Manila Rope.
 - b) Describe the use of pads at sharp edges while placing slings.
 - c) What are knots, bends and hitches.
 - d) Describe Spur Geared hoist.
 - e) Advantages of accident preventive measures.
 - f) What are the tools used in Boiler erection and steps in mounting.
- 3. Attempt any FOUR of the following:** **16**
- a) Describe SWR construction and their applications.
 - b) What is the need of inspection of hoisting chain.
 - c) Describe the necessity of adjustment of length of sling length.
 - d) Describe the construction and operation of pull lift chain hoist.
 - e) What are major causes of accidents?
 - f) Explain boiler mountings.
- 4. Attempt any TWO of the following:** **16**
- a) (i) What are the different types of wire rope attachment explain any one.
(ii) What are types of connecting tools. Explain any two.
 - b) (i) What are the human factors responsible for accidents?
(ii) What is good housekeeping.
 - c) What are the steps in advance planning of erection process.

5. a) **Attempt any ONE of the following:** **4**
- (i) Explain plain and braided construction for rope.
 - (ii) Enlist the types of costs in erection work.
- b) **Attempt any TWO of the following:** **12**
- (i) What are the three conditions for safe handling of loads? Explain any one.
 - (ii) What are different types of Hoist Signals. Sketch any four.
 - (iii) Explain site operations.
6. **Attempt any TWO of the following:** **16**
- a) Give detailed classification of Ropes. Explain any one synthetic fibre rope.
 - b) Describe the characteristics and features of following N fiber ropes
 - (i) Hemp Rope
 - (ii) Coir Rope
 - c) Enlist accident preventive measures explain any one.
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