# 17603

# 15162 3 Hours / 100 Marks

Seat No.

*Instructions* : (1) All Questions are *compulsory*.

- (2) Answer each next main Question on a new page.
- (3) Figures to the right indicate full marks.
- (4) Assume suitable data, if necessary.
- (5) Use of Non-Programmable Electronic Pocket Calculator is permissible.
- (6) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

# Marks

#### 1. (A) Attempt any THREE :

- (a) State any four functions of super-intending engineer of PWD.
- (b) Define 'contract', list of four types of contract.
- (c) Write eight points to be included while drafting a tender notice.
- (d) Describe any four requirements of a valid contract.
- (e) Give the meanings of :
  - (i) Earnest money deposit
  - (ii) Security money deposit

#### (B) Attempt any ONE :

- (a) State different methods executing a work by PWD and explain any one in details.
- (b) Write six precautions to be taken while making entries in measurement book. Draw format of a measurement book.

 $1 \times 6 = 6$ 

#### $3 \times 4 = 12$

#### 2. Attempt any FOUR :

- (a) State the salient feature of BOT project. Give two example.
- (b) What is a measurement book ? State its importance.
- (c) Explain briefly administrative approval and technical sanction in connection with government works.
- (d) State the uses of
  - (i) Cash Book
  - (ii) NMR
  - (iii) Indent
  - (iv) Imprest cash
- (e) Define arbitration. State the qualities of arbitrator.
- (f) State the points to observed in filling the tender.

# **3.** Attempt any FOUR :

- (a) Explain the situation when the lowest tender is rejected.
- (b) Differentiate between percentage rate contract and item rate contract.
- (c) What is demolition contract ? How is different from construction contract ?
- (d) State any four legal aspects of the specification.
- (e) Neatly draw the organisation setup of PWD.

#### 4. (A) Attempt any THREE :

- (a) Define
  - (i) Retention money
  - (ii) Mobilisation advance

 $4 \times 4 = 16$ 

 $3 \times 4 = 12$ 

- (b) Specification state and explain the various types of it.
- (c) Differentiate between cost plus percentage rate contract and cost plus fixed fee contract.
- (d) State the meaning of salvage value and scrap value.

(B) Attempt any ONE :  $1 \times 6 = 6$ 

- (a) State the classes of contractor. List of six important documents to be submitted for registration of contractor.
- (b) What is NMR ? Draw the format of NMR. State any two precautions for writing in NMR.

### 5. Attempt any TWO :

- (a) Draft a tender notice for construction of new girls hostel building in Government Polytechnic Nanded costing ₹ 2 crores to be invited by E.E. (PWD).
- (b) Define :
  - (i) Value of a property. State its characteristics.
  - (ii) Explain the factor affecting value.
- (c) A person purchases plot measuring 680 sq. m. @ 900 per/m<sup>2</sup>. He construct building having area 200 m<sup>2</sup> built up area. Cost of construction being ₹ 12000/m<sup>2</sup>. He desires to have net return of 6% on building cost and net return of 5% on land cost. Assuming outgoing 22% of gross income. Suggest suitable rent for the property.

#### $2 \times 8 = 16$

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### 6. Attempt any FOUR :

- (a) Draft a detailed specification for external plastering in cm (1 : 4) with 20 mm thickness on a new brick wall.
- (b) Write the necessity of specification.
- (c) Define depreciation. State the various methods of calculating it. Explain any one method.
- (d) Define :
  - (i) Sinking fund
  - (ii) Define the term "standard specification"
- (e) A property fetches a monthly rent of ₹ 1200. The outgoing are as below sinking fund installment = ₹ 900/annum, repairs = ₹ 1200 per year. Other outgoings = 15% of gross rent. Calculate the capitalised value of property, if rate of interest is 9%.

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