

17603

15116

3 Hours / 100 Marks

Seat No.

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- Instructions* – (1) All Questions are *Compulsory*.
- (2) Answer 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. a) Attempt any THREE of the following :** **12**
- (i) State any four methods used in P.W.D. for execution of work. Explain any one.
- (ii) Explain any three requirements of valid contract.
- (iii) Define ‘Contract’. State objects of contract.
- (iv) List out any eight points to be included while drafting tender notice.
- (v) Give meaning of terms –
- (1) Defect liability period
- (2) Time limit

P.T.O.

b) Attempt any ONE of the following :**6**

- (i) Explain the procedure of initiating the government work by P.W.D.
- (ii) State the meaning of terms –
 - (1) Advance payment
 - (2) Secured advance
 - (3) Mobilization advance.

2. Attempt any FOUR of the following :**16**

- a) Draw organisation structure of P.W.D. headed by Chief Engineer.
- b) State two functions of Superintending engineer and Executive engineer.
- c) State the classification of contractor.
- d) Give meaning of 'BOT.' State the objects of BOT.
- e) What is indent and invoice ? State use of each.
- f) Enlist the different account forms used in P.W.D. Explain any one.

3. Attempt any FOUR of the following :**16**

- a) Define 'tender'. State types of tender.
- b) Define 'earnest money' and 'security deposit'.
- c) State any four conditions under which lowest tender is rejected.
- d) List out various documents required for registration of contractor.
- e) State two advantages and disadvantages of item rate contract.

- 4. a) Attempt any THREE of the following :** **12**
- (i) Rule out a format for nominal muster roll form no. 21.
 - (ii) What is unbalanced tender ? Give example.
 - (iii) Enlist points to be observed in framing specifications of an work item.
 - (iv) State any six necessities of valuation.
- b) Attempt any ONE of the following :** **6**
- (i) Enlist types of engineering contract. Explain cost plus fixed fee contract.
 - (ii) Explain the following –
 - (1) First and final bill
 - (2) Retention money
 - (3) Petty advance
- 5. Attempt any TWO of the following :** **16**
- a) Draft a tender notice for construction of Girls Hostel at your polytechnic campus costing Rs. 150 lakhs.
 - b) A person purchases a plot measuring 100 sq.m. at a rate of Rs. 1000/- per sq.m. He constructs a building of built up area 70 sq.m. The cost of construction is Rs. 1100/- per sq.m. He desires net returns of 7% on land cost and 9% on building cost. He deposits Rs. 4000 per year as sinking fund. Assuming all other outgoing as 20% of gross income. Suggest monthly rent for the property.
 - c) (i) Calculate book value of an asset costing Rs. 15 lakh at the end of 40th year, assuming the life of asset as 100 yrs. and salvage value of Rs. 50,000/-.
 - (ii) A building was constructed at Rs. 4 lakhs. The salvage value is 10% of cost of construction. The life of building is 75 years. Calculate sinking fund installment if rate of interest is 3%.

17603

[4]

Marks

6. Attempt any FOUR of the following :

16

- a) State the importance of specification.
 - b) Draft a detailed specification for cement plaster 1:6 for a brick wall.
 - c) State different types of specifications. Explain any one in brief.
 - d) State methods of depreciation and explain any one.
 - e) Define 'Years Purchase' and 'Sinking fund'.
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