

Government of India
Central Public Works Department
Departmental Examination for Executive Engineers / Deputy Directors (Hort)

Account – I

Instructions: Attempt all questions. Marks have been indicated against each question.

Maximum Marks -100

Time: 3 Hours

1. What is secured advance and what are the conditions observed for its sanction?
(10 Marks)

2. Explain the term “Lapsed Deposits”. Describe the circumstances under which Deposits are lapsed or confiscated.
(10 Marks)

3. Differentiate between – (4 x 5 Marks)
 - (i) Security Deposit and Earnest Money Deposit
 - (ii) Original Work and Repair
 - (iii) Deposit Work and Work by Letter of Authorization
 - (iv) On account Payment and Intermediate Payment

4. Explain : (5 x 4 Marks)
 - (i) Technical Sanction
 - (ii) Material Purchase Settlement Suspense Account
 - (iii) Interest bearing securities
 - (iv) Work Charged Establishment
 - (v) Letter of Credit

5. What purposes are served by Transfer entries in Public Works Account?
(10 Marks)

6. What principles are observed in determining whether an expenditure is chargeable to the capital or Revenue account of a project? Explain in brief.

(10 Marks)

7. What are the percentage charges? In what cases are they recovered?

(10 Marks)

8. What is the procedure for the Receipt, Issue and custody of Stock Materials in a Public Works Division? Describe in brief.

(10 Marks)

Government of India
Central Public Works Department
Departmental Examination
FOR EXECUTIVE ENGINEER AND DEPUTY DIRECTOR (HORT.)
Account Paper-II (with Books)

June-2023

Time: 3 Hours

Max. Marks: 100

Books Allowed: CPWA Code, FRs, SRs and Book of Forms

Forms to be supplied: (1) Cash Book {CPWA-1}, (2) Bill form {CPWA 26, 26A}

(3) Contractor's Ledger {CPWA-43}, (4) Work abstract {CPWA-33},

(HELP BOOKS HAVING SOLVED EXAMPLES NOT ALLOWED)

Attempt all Questions, Questions carry marks as indicated against each.

Question 1: Write the Cash Book for December 2022 of Executive Engineer, Construction Division 2, CPWD, New Delhi, indicating classification of each item and close the cash book giving analysis of closing balance and certificate by the Executive Engineer:

Marks 30

□

1-12-	Opening Balance	
	(i) Notes and Coins	600
	(ii) Service Postage Stamps	30
	(iii) Revenue Stamps	40
	(iv) Self cheque dated 27-11-2022	2,000
	(v) Permanent Imprest with AE 1	1000
	(vi) Permanent Imprest with AE 2	1000
	(vii) Bank Deposit Receipt from a contractor as Earnest Money	15,000
	(viii) Cheque dated 28-11-2022 in favour of a contractor lying undelivered	7,500
02-12-	Cashed self cheque dated 27-11-2022	2,000
	Delivered cheque dated 28-11-2022 to the contractor	7,500
04-12-	Paid 2 nd RA Bill to contractor Suresh by cheque no 1 for the work "construction of staff quarters"	
	(i) Gross value of work done	3,00,000
	(ii) Amount paid on 1 st RA Bill	2,50,000
	Recoveries:	
	(i) Security deposit	3,000

	(ii) Income tax	2,000
	(iii) Fine for bad work	1,000
06-12-	Issued temporary advance by cheque to AE 3 for payment to Labour	5,000
08-12-	AE 1 renders Imprest Account, partly adjusted and partly recouped, chargeable to: (iv) Repair to office furniture (v) Cash found short (vi) Repair to Inspection Bungalow Imprest reduced from ₹ 1000 to ₹ 800	600 100 100
10-12-	Renewed time expired cheque to a contractor for supplies of the staff quarter work	20,000
10-12-	Cancelled cheque dated 05-09-2022 of the contractor for supplies of the staff quarter work	20,000
17-12-	Received from auctioneers on account of sale proceeds of wood received from trees in Public Works Inspection Bungalow, put to auction: Gross amount ₹ 27,000 Less auctioneers commission ₹ 800	
18-12-	Cash collections to-date during the month remitted to treasury	27,000
23-12-	Assistant Engineer 2 reported loss of ₹20 out of Permanent Imprest of ₹100	
25-12-	Paid GPF advance to an MTS by cheque	25,000
28-12-	Cash found short in chest	50

Question2: From the data given below, prepare the second running account bill of the work construction of general pool office accommodation pertaining to C Division, CPWD, New Delhi. Also fill up the Account of Secured Advance Form CPWA 26-A.

Marks 20

Item of Work	Unit	Quantity executed up-to-date	Quantity executed as per 1 st RA Bill	Rate ₹
1. Earth work in foundation	Cu.M.	5,000	2,000	10
2. Brick work in cement	-do-	850	550	400
3. R.C.C. in foundation	-do-	600	200	1150
4. Steel work in columns	Kilogram	25,000	15,000	9
5. Wood work in doors	Cu.M	400	----	12

- (i) Advance payment of ₹ 1,10,000 was made for work done and not measured in the first running bill for RCC work.
- (ii) Secured Advance for 2,00,000 brick was given in 1st RA Bill. The full assessed rate is ₹ 500 per 1000 bricks. The allowed rate was 75% of the full assessed rate. The bricks used since previous bill were 1,50,000. Another secured advance was paid in 2nd RA bill for 40,000 bricks brought to site since payment of previous bill.
- (iii) No material was issued from department.
- (iv) Deduct Security Deposit @ 5%, Income Tax @ 1% and IGST @ 2%.
- (v) Deduct fine for bad work ₹ 1000.
- (vi) Recover Hire charges of concrete mixer ₹ 2500.

Question 3: Post the following transactions in Work Abstract of work X for the month of April 2023.

Marks 15

- (i) Out of a muster roll for ₹ 6000 for brick work, ₹ 4700 was paid to labourers. ₹1300 remained unpaid.
- (ii) Drew salary of work charged establishment ₹ 5800; out of which ₹ 800 were left unpaid.
- (iii) Payment to contractor "A" on his first Running Account Bill as per detail below:
 - Earth work 200 Cum @ ₹ 20 per Cum
 - Brick work 30 Cum @ ₹ 200 per Cum
 - Advance payment ₹2000
 - Secured Advance ₹4000
 - Deduct ₹ 2000 for cement issued to contractor for the work
 - Deduct 2.5% on account of Security Deposit
- (iv) Surplus bricks valued at ₹ 1200 and borne on material at site account were sold for Rs 1000.
- (v) Steel sheets purchased for ₹ 7500 was handed over to contractor "A" valued at ₹ 9000 at the rate stipulated in the agreement.
- (vi) A sum of ₹ 800 paid to daily labourer on muster roll is recoverable from contractor "A".

Question 4: Post the following details of a final bill of a contractor in the contractor's ledger.

Marks 05

Transaction details	
Value of work done since previous bill	40,750
Material issued for same work recovered since previous bill	8075
Secured advance recovered since previous bill	7500
Advance payment recovered since previous bill	4750
Security deposit recovered since previous bill	4075
Amount of cheque to be issued	16350

Question 5: Write short note on "restricted tenders" as provided in SOP for CPWD Works Manual – 2022.

Marks 5

Question 6: What is collaboration tool and what are its main features?

Marks 5

Question 7: Choose the correct option in the following multiple-choice question.

Marks 20

- (i) Which mode of EMD is not acceptable for full amount:
- Banker's Cheque of Commercial Bank
 - Fixed Deposit Receipt (FDR) of Commercial Bank
 - Insurance Surety Bonds
 - Performance Guarantee from a Commercial Bank
- (ii) Which is incorrect statement about EPC contracts:
- There are three modes of EPC contracts
 - In mode I, structural and architectural drawings are in the scope of the contractor
 - In mode II, only architectural drawings are in the scope of the contractor
 - In mode III, structural and architectural drawings are in the scope of the department
- (iii) Clause 1A of GCC deals with:
- Recovery of Security Deposit
 - Performance Guarantee
 - Submission of EMD
 - Refund of EMD
- (iv) Computerized Measurement Book is dealt under which clause of GCC:

- a. Clause 6
 - b. Clause 7
 - c. Clause 7A
 - d. Clause 8
- (v) Clause 15 of GCC deals with:
- a. Pre-construction activities
 - b. Suspension of work
 - c. Action in case work not done as per specification
 - d. Damages and defect liability
- (vi) Employment of technical staff is dealt under which clause of the GCC:
- a. Clause 31
 - b. Clause 32
 - c. Clause 33
 - d. Clause 34
- (vii) Communication to any CPWD employee can be sent using which ERP Module:
- a. HCM
 - b. WLCM
 - c. E - Nirmit Sanchar
 - d. LMS
- (viii) REFX is used for:
- a. Preparation of Detailed Estimate
 - b. Preparation of Preliminary Estimate
 - c. Justification of rates
 - d. Quarter inventory data collection
- (ix) Which of the following is not part of HCM:
- a. Pay roll master date
 - b. Relieving/Joining
 - c. Transfer/posting
 - d. Request for inspection
- (x) The cutoff value of projects, above which all tenders are to be invited as technology neutral is:
- a. ₹150 crore
 - b. ₹100 crore
 - c. ₹50 crore
 - d. ₹25 crore

CENTRAL PUBLIC WORKS DEPARTMENT

DEPARTMENTAL EXAMINATION -- June 2023

ACCOUNTS PAPER III FOR EEs & DDH

Answer all questions. Maximum marks for each question are mentioned against each question. Time allowed is Three hours.

A. Mention latest delegated financial powers of CPWD officers AE,AD(H)/EE,DD(H)/SE, Director(H) in respect of the following matters.

1. Purchase of materials, items of those available in GeM portal (Individual supply order & annual limit). (6 marks)
2. Purchase of materials from open market through quotations for items not available in GeM (individual supply and annual limit). (6 marks)
3. Engagement of private Architects / Consultant's. (3 marks)
4. Invitation tenders for component parts. (3 marks)
5. Award of work to labour co-operative societies without call of tenders. (3 marks)
6. Award of work by negotiations, ab-initio after infructuous call of tender or with a firm which has not quoted for execution of the remaining work after recession of the contract. (3 marks)
7. Powers to modify contract conditions. (1 marks)

B. Explain SOPs related to following as per CPWD Works Manual 2022. (25 marks)

- (1) Deposit works (5 marks)
- (2) Composite tenders. (5 marks)
- (3) Procedure for opening of Two & Three bid tenders. (5 marks)
- (4) Execution of works on EPC Contract basis. (10 marks)

C. With reference to GCC (EPC) – 2022 explain various clauses dealing with (5x10 marks = 50 marks)

- (1) Levy/Taxes payable to contractor and conditions for reimbursement of levy/taxes it levied after receipt of tender.
- (2) Labour laws to be complied by the contractor and issues related labour welfare.
- (3) Measurement books, payment of running account bills, final bills to the contractor.
- (4) Completion certificate/completion plan, release of security deposit, life cycle cost.
- (5) Suspension of work, war like situation & foreclosure of contract due to abandonment or reduction in scope of work.

END OF THE PAPER

JUNE 2023
LAW OF CONTRACT

Time 3 Hours

Total Marks: 100

Section-A

1. Differentiate between: (Attempt any four) (4 X 5 = 20 marks)
- (a) 'Earnest money' & 'Performance Guarantee'
 - (b) 'EPC contract' & 'Item rate contract'
 - (c) 'Advance payment' & 'Secured advance'
 - (d) 'Extra item' & 'Deviation item'
 - (e) 'Void agreement' & 'Enforceable contract' (with ref to Indian Contract Act)

Section – B

Section – B contains ten questions and any eight are to be attempted

(8 x10 =80 marks)

2. You have awarded a work to a contractor for the renovation of 10 no. residential quarters. The stipulated period (4 months) is already over but you could not handover the site as the quarters were occupied. Now the site is available but the contractor has refused to work citing escalation in prices in this period of 4 months.

What would you do in such situation?

3. The defect liability period of a building work is over. Now you notice serious structural defects in the work due to bad quality execution.

What would you do in such situation? Write a draft letter/ notice addressed to contractor?

4. The contractor is not deputing his engineers as required as per clause 36 of GCC. Write a draft letter/ notice to the contractor.
5. Explain the scope of clause 10CC and 10Cin CPWD - GCC?
6. A work on hilly terrain is delayed by 12 months due to landslides. After completion of work, the contractor raises a claim for loss/ damages of his overhead expenditure incurred in this extra period of 12 months. How would you respond to such claim?

Write a draft letter addressed to contractor. (with reference to the provisions in Indian Contract Act).

7. What are the provisions in GCC to safeguard the interests of the labour deployed by the contractor? Please mention the specific clauses.
8. An Arbitrator has published the arbitration Award after the time limit available to the Arbitrator as provided in Arbitration Act has expired. What would you do in such situation?
9. What are the benefits that you perceive with the implementation of ERP in contract management in CPWD.
10. Explain the difference between 'Termination of a contract' & 'Foreclosure of contract' .
11. Define with reference to Workmen Compensation Act, 1923:
 - (a) Employer
 - (b) Total Disablement
 - (c) Wages

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Government of India
Central Public Works Department
Departmental Examination
FOR AEEs/AEs/AD(H)
Account Paper- I (Without Book)

June -2023

Time: 3 Hours

Max. Marks: 100

The question paper contains 7 questions.

Attempt all Questions. Questions carry marks as indicated against each.

Question 1: Write short note on any seven of the following.

Marks 28

(i) Mobilization Advance	(v) EPC contracts
(ii) Advance Payment	(vi) Security Deposit
(iii) Mode of EMD	(vii) Loss of Measurement Book
(iv) Bill Register	(viii) Compensation for delay

Question 2: Differentiate between any four of the following.

Marks 20

- (i) Preliminary estimate and detailed estimate
- (ii) Permanent Imprest and Temporary Advance
- (iii) First and Final Bill and Running Account Bill
- (iv) EPC Contract Mode I and EPC Contract Mode II
- (v) Departmental Receipts and Departmental Charges

Question 3: Classify the following transactions.

Marks 10

- (i) Construction of residential quarter in general pool
- (ii) Repairs to a district jail
- (iii) Rent received in respect of Office Buildings
- (iv) Rent for buildings hired for General Pool Residential purpose
- (v) Cost of construction of Libraries
- (vi) Security Deposit received by a CPWD Division from one of its contractors
- (vii) Recovery of Employees Group Insurance Scheme from Government servant
- (viii) Expenditure on Construction of a High Court Building
- (ix) Cost of electric installation in Government Medical College
- (x) Unclaimed amount of final bill of a contractor

Question 4: Name any six modules of CPWD ERP System.

Marks 6

Question 5: What safeguards exist to prevent double payment of:

Marks 6

- (i) Bill of a contractor for the same work
- (ii) Refund of Deposit to a contractor
- (iii) Refund of revenue realized

Question 6: Enumerate the guiding principles, which a Sub-Divisional Officer should observe, in preparation, examination and payment of contractor's bill.

Marks 10

Question 7: Choose the correct option in the following multiple-choice question.

Marks 20

- (i) In CPWD, the percentage of Test Check of measurements to be conducted by Assistant Engineer relates to:
 - a. Monetary Value
 - b. Area
 - c. Volume
 - d. Number
- (ii) What is incorrect about the advance payment for work done and measured
 - a. It is paid on receipt of an application from the contractor for financial aid
 - b. The amount of advance should not exceed 70% of the net amount of the bill under check
 - c. The amount of advance payable should not less than Rs 20,000/
 - d. Statutory taxes are to be deducted from the advance payment
- (iii) What is incorrect about the site order book
 - a. The Site Order Book is maintained at the site of the work
 - b. For composite tenders, separate site order books shall be maintained by each discipline.
 - c. The EE should periodically review the site order book and sign in token of having read all the instructions
 - d. The contractor is not allowed to note his difficulties in this book.
- (iv) EMD is ₹ 12000, Work done and measured in 1st RA Bill is ₹ 10 lakhs, Security Deposit is to be recovered @5%. What will be the amount of SD recovered in this Bill.
 - a. 33,000

- b. 38,000
 - c. 42,000
 - d. 45,000
- (v) Files and Spaces are part of:
- a. HCM Module
 - b. WLCM Module
 - c. Collaboration tool
 - d. E-Tender
- (vi) One can login in ERP portal of CPWD using his:
- a. Mobile number
 - b. Government (gov) E-Mail ID
 - c. PIMS ID
 - d. Personal E-Mail ID
- (vii) Full form of LMS:
- a. Learning Management System
 - b. Leave Management System
 - c. Learning Module System
 - d. Life cycle Module System
- (viii) Rescheduling of Mile Stone is governed under which clause of the GCC:
- a. Clause 8
 - b. Clause 7
 - c. Clause 6
 - d. Clause 5
- (ix) Clause 25 of the GCC deals with:
- a. Employment of technical staff
 - b. Settlement of dispute
 - c. Completion certificate
 - d. Payment of mobilization advance
- (x) Labour welfare is governed under which clause of the GCC:
- a. Clause 17
 - b. Clause 28
 - c. Clause 19
 - d. Clause 20

CENTRAL PUBLIC WORKS DEPARTMENT

Departmental Examination for Assistant Executive Engineer/Assistant Engineer/
Assistant Director (Hort.)

2023

ACCOUNT PAPER-II (With Books)

Time: 3 Hrs.

Max. Marks: 100

Books allowed: CPWD Account code, FRs, SRs and book of Forms.

Forms to be supplied: Cash Book (CPWD Form I), Running Account Bill (Form 26 and 26A) and Work Abstract (CPWD Form 33)

(HELP BOOK HAVING SOLVED EXAMPLES NOT ALLOWED)

Attempt all questions. Questions carry marks indicates against each.

Question 1. Post the following transactions in the cash book of Executive Engineer 'H' Division for the month of May 2023 indicating the classification of each item. Close the cash book giving analysis of closing balance. [20 Marks]

2-5- Opening Balance	₹
(i) Revenue Stamps	200
(ii) Service Postage Stamps	1200
(iii) Imprest with X	4000
(iv) Imprest with Y	5000
(v) Imprest with Z	3000
(vi) Cheque No. 111 from Assistant Engineer R on account of refund of Leave travel Concession overdrawn in April' 2022	1458
(vii) DD dated 20-04-2023 on SBI from highest bidder from auction of furniture	2000

3-5 (a) Remitted cheque no. 111 dated 15.04.2023 to bank

(b) DD dated 20-04-2023 remitted to bank

4-5- Paid by e-Payment to contractor 'E', his 2nd running account bill for the "Construction of a new block for a Hospital Building". The particulars are given below:

	₹
(i) Total value of work actually measured up-to-date	1,56,000
(ii) Total up-to-date Advance Payments	42,000
(iii) Total up-to-date secured advances	10,000
(iv) Total payments made in the 1 st running A/c bill	78,000
(v) Total value of work since previous bill	95,000
(vi) Recoveries –Recovery for other division	8,000
(vii) Hire charges of tools & plant	1000

Water Charge@1%, Security deposit @2.5%, Income tax @ 2%,

CGST@1% & SGST@1%

8-5- Imprest rendered by X

i) Railway freight for tools and plant	2000
ii) Carriage and coolie charges	325

Imprest was recouped by e-Payment

9-5 Realised Miscellaneous Receipts 700

15-5 Miscellaneous Receipt remitted to bank 700

16-5- Imprest rendered by Y

i) Paid towards Cleaning of office	1500
ii) Carriage of stocks	525

Imprest was recouped by e-Payment

25-5- Imprest rendered by Z

i) Repair of Non-Residential Building	1450
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- ii) Repair of Residential building 450
- Imprest was recouped by e-Payment
- 27-5- Purchase service postage stamps by e-Payment 300
- 30-5- (i) Made e-Payment for Salary –Gross amount ₹42,300; Recoveries: Income tax ₹ 1,600 ; License fee ₹ 2350; Motor car advance ₹ 500; GP fund ₹ 2,250 ; Central Govt. Employees Group Insurance ₹ 720

Question 2. From the details given below, prepare the second running account bill of Rama & Co. for constructing a High Court Building. [20 Marks]

Item	Estimated Rate	Quantity
1. Earth Work	₹ 3200 per 1000 cft	50000 cft.
2. Brick Work	₹ 11000 per 100 cft	10000 cft.
3. RCC	₹ 4000 per cft	1000 cft
4. wood work	₹ 8000 per cft	450 cft
5. Iron work	Advance payment of ₹ 10000	

This is % rate tender and Contractor's rates are 5% below the estimated rate.

- (1) Material for which secured advance was given in the previous bill were used up as follows:
- (i) Bricks: 1400 bricks per 100 cft. of brick-work (ii) wood-used to wood work, but there was wastage of 10%
- (2) Recovery for other division ₹ 15000
- (3) Hire charges of concrete mixers creditable to revenue ₹ 1500
- (4) Security deposits as per remarks below from the 1st running a/c bill
- (5) The contractor was paid in 1st running account bill for the following:
- (i) Earth work 20000 cft. (ii) Brick work 4000 cft. (iii) RCC 250 cft.

Advance payment on item (iii) above of ₹ 20000. Maximum secured advance for 20000 bricks for which full-assessed value was ₹ 2400 per thousand bricks and for 700 cft. of wood for which full assessed value was ₹ 4000 per cft.

Security deposits 2.5% ; Income tax 2% , CGST 1%, SGST@1%

Contractor has deposited ₹ 15000 separately in Bank Guarantee in addition to the required amount of Performance Guarantee.

Question 3. The following transactions relate to the account of the work “Construction of a Holiday Home”. From the details, prepare the Work Abstract in the prescribe form for the month of January 2023. [20 Marks]

Items	Estimate ₹	Expenditure to the end of December 2022
1. Earth Work	4000	300
2. Cement Concrete	2000	600
3. Masonry	6000	-----
4. Flooring	2,600	-----
5. Wood work	8000	9000
6. Materials	40,000	1000
7. Advance payment	----	----
8. Secured Advance	----	3,000 (Contractor X)
9. Other Transactions	----	600 (Contractor X)

The following further transactions took place during January 2023

- 1) Disbursed ₹ 3030 out of muster roll for ₹ 3500 earth work having a balance of ₹470 as undisbursed.
- 2) 20 bags of cement were issued to contractor 'X' at the agreed rate of ₹ 144 per bag. Issue rate of cement was ₹ 150 per bag. A sum of ₹ 100 was incurred on its carriage to the work site, which is recoverable from the contractor.
- 3) Issue of 50 Sq. M. of ply board at the issue rate of ₹ 180 per Sq.M erroneously adjusted previously as issued direct to work is now adjusted as issued to contractor 'X'.
- 4) Paid ₹ 270 to a labourer being unpaid wages of previous muster roll.
- 5) Paid ₹ 5000 as cost of mosaic tiles received in the month of January 2023 and issued the same to contractor X for use in the item of flooring for his tendered rate was exclusive of cost of tiles.
- 6) Paid contractor 'X' 2nd on A/c bill containing the following items:
 - (i) Cement Concrete ₹ 1152
 - (ii) Stone Masonry ₹ 1,445
 - (iii) Advance Payment made ₹ 3,000
 - (iv) Secured Advance paid on bricks has been recovered ₹ 1000
 - (v) Deduction for cement consumed on the work ₹ 500
 - (vi) Deduction of Security deposit @2.5%

Question 4. PFMS Related Question

- i) What is PFMS? What are enhanced security layers in online payment process in PFMS?
[Marks 10]
- (ii) Who can work as DDO Maker & DDO Checker Users and what are their roles?
[Marks5]

Question 5. Comment on following:

- i) **The divisional officer orders that the earnest money received from the contractors on the day of opening the tenders need not to be entered in the cash book as it may have to be refunded on that very day.** [Marks 3]
- ii) **Some articles of Tools and Plant were sold in March 2023 but the amount recoverable from the purchaser was not realised, till the close of financial year. The Executive Engineer, however, credited the amount to revenue by charge to the head “Misc. Works Advances”** [Marks 4]

Question 6.Fill in the blank

[2 Marks each]

Fill in the blank **monetary ceiling** & other information/ guidelines **related to GeM.**

- (i) Up to ₹ through any of the available suppliers on the GeM, meeting the requisite quality, specification and delivery period.
- (ii) Above ₹ and up to ₹ through the GeM Seller having lowest price amongst the available sellers, of at least three different manufacturers, on GeM meeting the requisite quality, specification and delivery period.
- (iii) Above ₹ through the supplier having lowest price meeting the requisite quality, specification and delivery period after mandatorily obtaining bids, using online bidding or reverse auction tool provided on GeM.
- (iv) Payment to be made to the supplier withindays, after supply of material.

Question 7. What is your post and What ERP modules have been used by you in your day to day work. Do you have any suggestion for betterment of any of the module?

[Marks 10]

Central Public Works Department
Departmental Examination for AEEs /AEs /ADs(H)
Account Paper -III (Without Books)
JUNE-2023

Time: 3 Hours

Maximum marks: 100

Note: Answer all questions. All questions carry equal marks.

Q.1 Write short notes on the following:

- a. Expenditure over A/A & E/S
- b. Technical Sanction
- c. Test Checking of measurements by the Executive Engineer
- d. Restricted Tenders

Q 2 Elaborate the following:

- a. Integrity Pact
- b. Performance Guarantee
- c. Forfeiture of Earnest Money
- d. Measurements of inadmissible items

Q. 3 Attempt any two (2).

- a. In case of the same lowest tendered amount is quoted by two or more contractors, how the lowest tender is decided?
- b. Describe General Conditions of Contract (GCC) provision for approval of sample of materials to be supplied by the contractor.
- c. Preparation of Justification statement of tenders

Q. 4 From the following details in EOT application of the contractor, please workout (a) total delay in work (b) delays beyond the control of both parties, (c) delays attributable to the Department, (d) Concurrent delays, (e) delays solely attributable to contractor (f) Justified extended date for completion.

- a. Estimated cost put tender/ Agreement amount-Rs. 5,21,25,000/- / Rs. 4,45,25,221/-
- b. Date of start as per agreement - 01-01-2022
- c. Time allowed for completion - 300 days
- d. Actual date of completion- 18-04-2023
- e. Total work done – Rs. 5,30,26,328/-
- f. Hindrances:
 - i. Site not available from 1-01-2022 to 19-2-2022
 - ii. Work stopped due to non-availability of sand on account of NGT Ban on sand quarrying in the state from 01-07-2022 to 25-07-2022
 - iii. Structural Drawings not available from 6-08-2022 to 19-08-2022
 - iv. Cement not made available by the contractor from 16-08-2022 to 18-08-2022

Q. 5 What are the different type of advance payments admissible in CPWD contracts? Explain any four.

Q. 6 Differentiate between following:

- a. Annual Repair and Maintenance works and Special Repairs works
- b. Statement of Claims and Statement of Defense
- c. Extra items and Substituted Items
- d. Permanent Imprest and Temporary Advance
- e. Advance payment for work done and measured and Advance payment for work done but not measured.

Q.7 Name the CPWD officers competent to accord sanction in following cases as per delegation of financial powers:

- i. Recording of Completion Certificate for contract value of Rs. 4 crore.
- ii. Acceptance of single tender of Rs. 50 lakhs.
- iii. Acceptance of lowest tender of Rs. 35 crore.
- iv. To undertake deposit work of estimated cost of Rs. 3 crore of an autonomous body on full departmental charge.
- v. To accord Technical sanction to detailed estimate amounting Rs. 5.5 lakh.
- vi. Award of urgent work amounting Rs. 10.5 lakhs with call of quotations.
- vii. Accord of A/A & E/S to Minor works amounting Rs. 50 lakhs.
- viii. Deviations in quantities of agreement items of Rs. 15 lakh in a contract amounting Rs. 60 lakhs.
- ix. Purchase of material through supply order amounting Rs. 2 lakhs on GeM portal.
- x. To sanction mobilization advance of Rs, 6 crore.

Q. 8 Write standard format and make two entries in each:

- a. Inspection Register
- b. MAS Register
- c. Site Order Book
- d. Cement Register

Q.9 State the GCC clause no. applicable in the following situations, explaining relevant provision:

- a. The work cannot be started after award of work.
- b. The contractor has not produced labour clearance certificate from labour officer.
- c. During progress of work, client decides to abandon the work, as it is no longer required.
- d. The contractor fails to submit completion plans of Civil, Electrical & Mechanical services
- e. Work not done as per specifications.

Q.10. Give full form of abbreviations and explain their relevance:

- a. PPP
- b. EPC
- c. IEM
- d. CWB
- e. TQM

Central Public Works Department
Departmental Examination for Junior Engineer / Section Officer (H)
Simple Accounts
JUNE, 2023

Time Allowed: 3 Hours

Maximum Marks: 100

Note 1. Answer all questions.

2. Following forms and documents shall be supplied to the candidates.

- (a) Running Account Bill Form No. CPWA 26
(b) Secured Advance Form No. CPWA 26-A

Q.1 Prepare 2nd Running Account Bill of M/s Super Builders for construction of School Building from the following details:- (Marks 30)

Sl.	Items of Work	Rates (Rs.)	Unit	Quantities Executed	
				In 1 st RA Bill	Up-to-date
1	Earthwork in Excavation	200/-	cum	4000 cum	8100 cum
2	Steel reinforcement	90/-	kg	Nil	9800 kg
3	Design mix M-25 grade concrete	8800/-	cum	30 cum	60 cum
4	Brickwork in cement mortar	6600/-	cum	11 cum	74 cum
5	Centering and shuttering	320/-	sqm	110 sqm	200 sqm.

- a) This is percentage rate tender and the contractor has quoted 2 % below.
- b) Part rate for Item No. 4 Brickwork in cement mortar is Rs. 6100/- per cum in 1st RA bill and 6400/- per cum in 2nd RA bill.
- c) Secured Advance was paid in the 1st RA Bill for 21,000 bricks at the assessed rate of Rs. 5000/- per 1000 bricks. Balance quantity at site is 9000 bricks.
- d) In the 1st RA Bill advance payment of Rs. 3,00,000 was done for work done but not measured. This advance is to be recovered in this bill.
- e) An amount of Rs. 90,000/- withheld from 1st RA Bill for not achieving 1st Milestone, is to be released in this bill on achieving of the 2nd Milestone.
- f) Following recoveries are to be made from the bill:-
- Security deposit at 2.5% of the gross amount of running bill.
 - Income Tax @ 2% of the gross amount of running bill.
 - SGST@1% and CGST @ 1%.
 - Mobilization advance of Rs. 11,00,000/- was paid in first RA Bill, out of which principal Rs. 6,50,000/- is to be recovered in this bill.
 - Interest on Mobilization advance with simple interest @ 8 % per annum for 30 days.
 - Recovery of Rs. 61,000/- for not deploying graduate engineer.

Q. 2 From the following data, prepare Secured Advance Account of Contractor M/s Supreme Construction Co. for 2nd RA Bill, and post in Form 26-A: (Marks10)

- a. Secured Advance on 9,000 Kg structural steel @ Rs. 60/-per Kg, was outstanding in the 1st RA Bill, out of which 3000 kg structural steel has been used in the work, further 6500 kg structural steel has been brought at site.
- b. The secured advance was given in 1st RA bill for 4000 sqm Marble slab purchased at the rate of Rs. 700/- per sqm. No quantity has been consumed in the work after 1st RA bill.
- c. Secured Advance was paid in 1st RA Bill for 285 cum stone aggregates at rate of Rs.1800/- per cum. Balance stone aggregate at site is nil.
- d. Contractor has requested secured advance for 7000 m GI pipe, brought by him at the site to be used for the work at the purchase rate of Rs. 84/- per m.

- Q. 3 Describe the following: (Marks 4x2.5=10)
- Third Party Quality Assurance
 - Test checking of Measurements by the Executive Engineer
 - Maintenance of Registers of Tests
 - Deposit Work

- Q. 4 What are the financial power delegated to AE/AEE/ADH and EE/DD(H)? (Marks 5x2=10)
- Award of urgent works with call of quotations
 - Sanction to extra /substituted items.
 - Declaring stores as unserviceable or surplus
 - Acceptance of lowest tender
 - Individual Supply Order for purchase of items through GeM Portal

- Q. 5. Differentiate between following: (Marks 5x2=10)
- Site Order Book and Inspection Register
 - Mobilization Advance and Secured Advance
 - Permanent Imprest and Temporary Advance
 - Original works and Repairs
 - Administrative Approval & Expenditure Sanction and Technical Sanction

- Q. 6. Write short notes on following: (Marks 4x2.5=10)
- Schedule of Rates
 - Plinth Area Rates
 - Standard Measurement book
 - MAS Register

- Q. 7. Describe in brief: (Marks 4x2.5=10)
- Refund of Performance Guarantee
 - Recovery of Security Deposit
 - Defect Liability Period
 - Acceptance of sub-standard work

- Q. 8. State whether following statements are true or false:- (Marks 10x1=10)
- Compensation for escalation under clause 10 CC is worked out on 90% of the value of work executed during the quarter
 - After acceptance of tender, if tenderer fails to furnish the Performance Guarantee, the earnest money is forfeited,
 - One year after his retirement, a gazetted officer of engineering department of Government of India, can work as an employee of the contractor.
 - The Executive Engineer is fully empowered for fixing the reserve price for disposal of purely temporary structure erected, after its purpose has been served.
 - Justification is prepared after opening of financial bid.
 - Executive Engineer can record the final completion certificate for the work with tendered value of Rs. 1.9 Cr.
 - Advance payment against work done and not measured can be allowed by EE under delegated financial powers to him.
 - In case of delay in payment of final bill after prescribed time limit, a simple interest @ 5 % per annum shall be paid to the contractor as per clause 9 of GCC,
 - Secured advance is admissible on cement on furnishing comprehensive insurance cover.
 - Contract can be foreclosed under clause 13 of GCC

CENTRAL PUBLIC WORKS DEPARTMENT
DEPARTMENTAL EXAMINATION IN HORTICULTURE – 2023

ASSISTANT DIRECTOR HORTICULTURE

Time : 3 Hours

Max. Marks : 100

Notes : Attempt any five question. All question carry equal marks.

1. Explain the principles of landscape and drainage and their importance in landscape design.
2. Explain the concept of xeriscaping and its benefits in water-efficient landscaping.
3. Explain the principles and techniques of greenhouse horticulture.
4. Explain the concept of integrated pest management (IPM) and provide examples of IPM strategies in horticulture.
5. Short Notes of the following
 - i) Drone application in the Horticulture and Landscaping.
 - (ii) Artificial intelligence in the Horticulture and Landscaping.
 - (iii) Hydroponics
 - (iv) Urban Horticulture and Landscaping.
 - (v) Sculptures and Statues in Horticulture and Landscaping.
6. Short Notes of the following
 - (i) Air Quality Index
 - (ii) Role of essential elements
 - (iii) Tree Transplantation
 - (iv) Phytoremediation
 - (v) Soil Substitutes

Government of India
Central Public Works Department
Departmental Examination for Assistant Executive Engineers (Civil)

Civil Engineering Paper – I
(Without Books)

Instructions: Attempt all questions. Marks have been indicated against each question.

Maximum Marks -100

Time: 3 Hours

1. Draft Analysis of Rates for

Distempering with oil bound washable distemper of approved brand and manufacture to give an even shade : - New work (two or more coats) over and including water thinnable priming coat with cement primer.

(Assume rates and coefficients. Only procedure will be checked for evaluation of Marks)
(10 Marks)

2. Upto which level of works are considered to be work in Foundation and Plinth for various type of structures as per CPWD Specifiaction?

(10 Marks)

3. Differentiate between two pipe system with common vent pipe and two pipe system with independent vent pipe with the help of schematic drawing.

(10 Marks)

4. Explain the following terms with help of suitable sketch

(4 X 5 Marks)

- (i) Ashlar Stone Masonary
- (ii) Dovetail Joint
- (iii) Gable
- (iv) Union

5. How stacks are measured and what percentage is reduced from volume of stack for looseness to arrive at net quantity for different type of materials?

(10 Marks)

6. What are five levels of severity of environment and what are corresponding exposure conditions? What is minimum nominal cover for durability requirement for different exposure conditions?

(10 Marks)

7. Write short notes on

(4 X 5 Marks)

- (i) Setting out and making profiles
- (ii) Bulking of Sand
- (iii) Project Evaluation Review Technique
- (iv) Building Management System

8. (i) What is sinking fund co-efficient?

(ii) What is use of green rating system? Name any three green rating system prevalent in India.

(2 X 5 Marks)

Government of India
Central Public Works Department
Departmental Examination for Assistant Executive Engineers (Civil)

Civil Engineering Paper – II
(Without Books)

Instructions: Attempt all questions. Marks have been indicated against each question.

Maximum Marks -100

Time: 3 Hours

1. (a) A short RCC column is required to carry an axial load of 1000 KN. If the permissible compressive stresses in the concrete and steel are 5 MPa and 230 MPa respectively, determine the size of column, longitudinal reinforcement and lateral ties.
(b) A hook of 2 cm diameter is embedded in concrete for a distance of 5 cm. Calculate the maximum load that can be suspended from the hook if the bond stress is not to exceed 2 N/mm².

(7 + 3 Marks)

2. What are different types of retaining walls? Discuss the principles of the design of retaining walls.

(10 Marks)

3. Discuss the functions of different component of a pavement. What factors affects the pavement design?

(10 Marks)

4. What are basic requirements for Design of structural members? Discuss in brief.

(10 Marks)

5. What are the components of water supply system? Discuss the factors considered while designing individual components of water supply system in a Campus.

(10 Marks)

6. The following staff readings were observed successively with a level, the instrument having been moved after third, sixth and eighth readings 2.228, 1.606, 0.988, 2.090, 2.864, 1.262, 0.602, 1.982, 1.044, 2.684 meters. Enter the above readings in a page of a level book and evaluate the R.L. of points if the first reading was taken with a staff held on a bench mark of 432.384 m.

(10 Marks)

7. From a topograph map, the areas enclosed by contour lines for a proposed dam are given below. Estimate the volume of water that can be impounded in this location.

Contour:	300	305	310	315	320
Areas enclosed (hectares)	20	110	440	930	1120

(10 Marks)

8. How Standard Penetration Test is performed? What are its uses?

(10 Marks)

9. What are the basic requirements of a Water supply pipe joint? Describe the various pipe joints with neat sketches.

(10 Marks)

10. Write short notes on

- (i) Geodesic Survey
- (ii) Profile Levelling
- (iii) Flocculation
- (iv) liquefaction of soil
- (v) Plastic method of Design

(5 X 2 Marks)

**Central Public Works Department
Department Examination for
Assistant Executive Engineer (E)
Electrical Engineering Paper- II
(With Books)**

2023

Time: 3 Hours

Maximum Marks: 100

Note: Attempt any TEN questions. All questions carry equal marks.

(Make your own assumptions wherever required and indicate them clearly.)

1. Prepare a BOQ for E&M items as per the latest yardstick for construction of 20 nos Type-III (G+4) quarters. A drawing of Type-III quarter is attached for reference. Wiring diagram, conduit layout etc for one quarter may also be drawn in the attached drawing. [Marks: 10]
2. List out various E&M services to be provided in a Basement+Ground+10 office building having a typical floor area of 2000 sq meter as per the provisions in NBC. What provisions should be made to make ventilation system of the basement, both energy efficient and safe? [Marks: 10]
3. Design power distribution system for Basement+Ground+15 storey office building, having floor area of 1000 sq meter (plot area of 2000 sq meter). [Marks: 10]
4. List out provisions of Firefighting installation in a fully air-conditioned Non-Residential building of 15 floors with 2 basements as per provisions of NBC giving all required details. The typical floor area is 50mtr X 50mtr and plot size is 200x200 sq mt. [Marks: 10]
5. What are the factors considered for designing a Sub Station? Work out rating/capacity of sub-station equipments i/c DG Set for a fully air-conditioned office building of 12 floors with 2 basements as per provisions of NBC and also draw a schematic diagram. [Marks: 10]
6. What are the design factors for providing Lifts in a multi storey residential complex having 4 towers of 20 storey each with 4 houses on each floor. What will be the Number of Lifts, Lift speed and capacity of Lift? [Marks: 10]

7. A 200-KVA transformer, with a copper loss of 2 KW at full load and iron loss 1 KW, has following equivalent annual load conditions:
Full-load at power factor 0.8 for 2,000 hours
One-third load at power factor 0.8 for 3, 000 hours
No-load for the remainder of the year.
Find the annual cost of running with electricity at ₹ 10/- per KWh. [Marks: 10]
8. Tender 'A' and 'B' for a 2000 KVA, 0.8 power factor transformer are: 'A': full-load efficiency 98.3% and core loss 7 KW at rated volage: 'B' 98.8% and 4 KW, but costs ₹ 10,000/- more than 'A'. The service conditions are : 1800 Hrs per annum at 2000 KVA, 600 Hrs at 600 KVA, and 400 Hrs at 25 KVA. Take depreciation at 10% of capital costs, and electricity costs at ₹ 10/- per KWh. Which is the better tender considering Life Cycle Cost and what would be the annual saving? [Marks:10]
9. A bulk power supply is taken at ₹ 200/- per KVA and ₹ 10/- per unit. Calculate the KWH rate for load factors of 100%,80%, 50% and 25%. [Marks 10]
10. Design a rooftop grid interactive solar power generation system of 100 KWp and list out the equipments and draw a schematic diagram. [Marks 10]
11. Design solar water heating system for hostel having accommodation for 200 boys with rooftop area of 60x50 sq. metre and draw a schematic diagram. [Marks 10]

CENTRAL PUBLIC WORKS DEPARTMENT
Departmental Examination for Assistant Executive Engineer(E)
Electrical Engineering Paper-I
(Without Book)
2023

Time: 3 Hrs.

Max. Marks:100

Attempt All Questions

Q1. Describe ANY TEN of following terms about Lift System: [Marks 10 x2 =20]

- i) Functions and essential features of ARD
- ii) Machine Room Less Lift
- iii) High Speed Lifts
- iv) Main difference in Goods & Passenger Lifts
- v) Accessibility norms for Lifts for differently abled persons
- vi) Hydraulic lifts selection for a Building
- vii) Regenerating Lifts
- viii) Lift Rope Compensation
- ix) Fireman's Switch
- x) Service Lifts
- xi) Architrave
- xii) Lift Safeties

Q2. Explain ANY FIVE of following terms in the context of Lighting System:

[Marks 5x2=10]

- i) LED Binning
- ii) LM 79 Standards
- iii) LM 80 Standards
- iv) Theoretical light output limit (lumen per watt) of LED vs current level of efficacies.
- v) Silhouette effect
- vi) Point vs Line Light Source

Q3. Elaborate following terms related to Fire Alarm System:

- i) What are various kinds of fire detector? Elaborate their features, selection criterion with examples of their application. [Marks: 8]
- ii) Fire Alarm Circuit Classes [Marks: 2]

Q4. Elaborate ANY TEN of the following terms related to Fire Safety Systems in Buildings: [Marks: 10 x 2=20]

- i) What order of precedents is to be followed while planning Fire Safety systems in buildings among building by laws of concerned municipal authority, National building code, BIS codes and TAC / NFPA code.
- ii) What are different categories of portable first aid fire extinguishers. Also comment on their suitability and self-life.
- iii) Smoke ventilation
- iv) Pressurisation of lifts well/Staircase
- v) Life safety measures in building

- vi) Fire Lifts
- vii) Emergency lighting /Escape Lighting
- viii) Compartmentalisation
- ix) Fire rated doors and windows
- x) Categories of Fire Risk as per NBC
- xi) Internal and External Fire Hydrant System
- xii) Wet Riser Vs Down Comer System

Q5. Elaborate and explain ANY Five of the following terms related to HVAC system:
[Marks: 5x4=20]

- i) Free Cooling
- ii) Eco-Friendly Refrigerant
- iii) Sick building Syndrome
- iv) COP Vs IPLV
- v) VRV Vs Centralized Air Conditioning System
- vi) Demand controlled mechanical ventilation system
- vii) Screw Vs Centrifugal Chiller System

Q6. Elaborate and explain ANY Five of the following terms related to ECBC & Energy Audit of Buildings:
[Marks: 5x2=10]

- i) Performance Contracting
- ii) EPI & star rating
- iii) TOD Tariff
- iv) Contract Demand
- v) Net Zero Building
- vi) Building Envelope

Q7. Elaborate and explain ANY Five of the following terms related to Electrical System/
Building Envelope:
[Marks: 5x2=10]

- i) Harmonics and its acceptable range
- ii) What is SCADA and its Components
- iii) Solar Heat Gain Coefficient
- iv) Skylights
- v) Solar Air Conditioning
- vi) Radiant Cooling
- vii) Ground Source Heat Pump

भारत सरकार
केन्द्रीय लोक निर्माण विभाग
हिंदी प्रश्न पत्र-2
(सहायक कार्यपालक अभियंताओं के लिए)
वर्ष 2023

समय : 3 घंटे

पूर्णांक: 100

प्रश्न 1. निम्नलिखित विषयों में से किन्हीं तीन विषयों पर टिप्पणियां लिखें ।

(अंक-15)

- 1- स्वस्थ शरीर में ही स्वस्थ मन का वास होता है ।
- 2- घटते जल स्तर की समस्या ।
- 3- कृत्रिम बुद्धिमत्ता का मानव जाति पर प्रभाव ।
- 4- भारत की समृद्ध सांस्कृतिक विरासत ।
- 5- मातृभाषा का महत्व ।

प्रश्न 2. निम्नलिखित प्रश्नों के संक्षेप में उत्तर लिखें ।

(अंक-15)

- 1- हिंदी दिवस किस दिन, क्यों और कैसे मनाया जाता है ?
- 2- भारत सरकार की राजभाषा नीति क्या है ?
- 3- कार्यालयों में हिंदी कार्य को बढ़ाने हेतु क्या कदम उठाए जाने चाहिए ?
- 4- राजभाषा हिंदी के प्रचार प्रसार में कम्प्यूटर का क्या योगदान है ?
- 5- राजभाषा वार्षिक कार्यक्रम किस विभाग द्वारा जारी किया जाता है ? इसका उद्देश्य क्या है ?

प्रश्न 3. नीचे दिए गए अंग्रेजी शब्दों में से किन्हीं 10 शब्दों के हिंदी पर्याय लिखिए और उन हिंदी शब्दों से हिंदी में वाक्य बनाइए ।

(अंक-20)

1. Amendment.
2. Up to date.
3. Conduct Rules.
4. Implementation.
5. Conditional.
6. Gazette notification.
7. Deduction.
8. Per Head.
9. Recommendation.
10. Time bound.
11. Selection process.
12. Sub-Division.

प्रश्न 4. नीचे दिए गए शब्दों में से किन्हीं 10 शब्दों के अंग्रेजी पर्याय लिखिए और हिंदी शब्दों से हिंदी में वाक्य बनाइए । (अंक-20)

- | | | |
|---------------------------|-------------------|-----------------|
| 1. वार्षिक स्वास्थ्य जांच | 2. कार्य प्रणाली | 3. संगरोध अवकाश |
| 4. अर्हक सेवा | 5. भर्ती पद्धति | 6. अवमूल्यन |
| 7. निदेश | 8. लेखा शीर्ष | 9. अनियमित |
| 10. देरी से भुगतान | 11. अपर महानिदेशक | 12. उप सचिव |

प्रश्न 5. निम्नलिखित का हिंदी में अनुवाद करें । (अंक-15)

The problem of pollution has become very serious today. Man has interfered too much with nature. As a result, environment which includes air, water, soil etc. has been polluted. If environment is polluted, all sorts of life – human, animal and vegetation are affected directly or indirectly. There are mainly four kinds of pollution - air pollution, water pollution, soil pollution and noise pollution.

Air Pollution refers to the presence of harmful and poisonous gases present in the environment. Air pollution is mainly caused by the smoke of industries, factories, motor cars, smoking and burning waste. It affects our health. It causes coughing, asthma and other lung diseases. Fossil fuel consumption is the prime factor contributing to air pollution.

Water pollution refers to the contamination of water bodies by human activities. Prime causes leading to water pollution are industrial waste disposal, sewage disposal and littering. Industrial waste containing harmful and toxic chemicals is poured into water bodies, resulting in their pollution. Also, littering in and around water bodies results in their pollution and makes the water hazardous to use.

प्रश्न 6. निम्नलिखित वाक्यों का हिंदी में अनुवाद करें । (अंक-15)

- 1- A revised draft memorandum is put up as desired by the Chief Engineer.
- 2- The case is resubmitted as directed on prepage.
- 3- We may ask the Ministry of Home Affairs to reconsider.
- 4- It will be necessary to obtain the following particulars before agreeing to the proposal.
- 5- No decision has so far been taken in the matter.
- 6- As the Ministry of Housing and Urban Affairs are concerned in the matter, the p.u.c. may be transferred to them for consideration.
- 7- Administrative approval may be obtained.
- 8- No action on our part seems to be called for.
- 9- Enquiry may be completed and its report submitted at an early date.
- 10- Provision exists in the budget for incurring the expenditure during the current financial year.

भारत सरकार
केन्द्रीय लोक निर्माण विभाग
हिंदी प्रश्न पत्र-1
(सहायक कार्यपालक अभियंताओं के लिए)
वर्ष 2023

समय : 3 घंटे

पूर्णांक: 100

प्रश्न 1. निम्नलिखित में से किसी एक विषय पर निबंध लिखें :- (अंक-20)

- 1- सौर ऊर्जा की बढ़ती संभावनाएं ।
- 2- अन्तरराष्ट्रीय खेल प्रतियोगिताओं में भारतीय महिलाओं का योगदान ।
- 3- जल संरक्षण क्यों और कैसे ।
- 4- योग एवं ध्यान के प्रति बढ़ती जागरूकता ।
- 5- कृत्रिम बुद्धिमत्ता के बढ़ते कदम ।

प्रश्न 2. आपके कार्यालय के सहायक, श्री..... को हृदय रोग के कारण आपात स्थिति में केंद्रीय सरकार स्वास्थ्य योजना द्वारा अनुमोदित अस्पताल में भर्ती कराया गया है। उक्त अस्पताल में उनकी चिकित्सा की जा रही है। श्री..... ने कार्यालय में अपने आवेदन में यह अनुरोध किया है कि उनकी आर्थिक स्थिति ऐसी नहीं है कि वे इस चिकित्सा पर होने वाले व्यय को वहन कर सकें। अतः क्रेडिट के आधार पर चिकित्सा कराने की अनुमति दी जाए। श्री..... के आवेदन पर विचार करते हुए विभागाध्यक्ष को आवश्यक टिप्पणी प्रस्तुत की जाए। (अंक-10)

प्रश्न 3. निम्नलिखित मुहावरों का वाक्यों में प्रयोग करें जिससे उनके अर्थ स्पष्ट हो सकें। (अंक-20)

- | | |
|----------------------------|----------------------------|
| 1- आँखें खुलना । | 2- अक्ल का दुश्मन । |
| 3- अपनी खिचड़ी अलग पकाना । | 4- एक लाठी से हाँकना । |
| 5- कंधे से कंधा मिलाना । | 6- कान भरना । |
| 7- कमर कसना । | 8- गाजर मूली समझना । |
| 9- चाँदी काटना । | 10- जलती आग में घी डालना । |

प्रश्न 4. निम्नलिखित वाक्यों का शुद्ध रूप लिखें :- (अंक-10)

- 1- मैंने पढ़ते हुए दो कुत्तों को देखा ।
- 2- एक दिन मेरे मित्र मेरे यहाँ बैठे हुए शब्दों और उनके अर्थों की चर्चा कर रहे थे।
- 3- 'आर्यावर्त' एक राष्ट्रिय दैनिक है ।
- 4- आज अन्तराष्ट्रीय सहयोग के बिना काम नहीं चल सकता है ।
- 5- अन्तर्विश्वविद्यालय-प्रतियोगिता कब होगी ।
- 6- भारत की राजनीतिक दशा का वर्णन करें ।

- 7- उसने पत्र में क्या लिखा है ?
- 8- मेरी असफलता ईश्वर की कृपा पर निर्भर करती है ।
- 9- घोड़े चार पैर रखते हैं ।
- 10- मैं सवेरे में उठता हूँ ।

प्रश्न 5. कोष्ठक में दिए गए शब्दों से रिक्त स्थान भरें:-

(अंक-10)

- | | |
|--|------------------------|
| 1- मैथिली एकभाषा है । | (क्षेत्रिय, क्षेत्रीय) |
| 2- उसकाजीवन सुखी है । | (पारिवारिक, परिवारिक) |
| 3- इसकाकारण क्या है । | (भूगोलिक, भौगोलिक) |
| 4- वहां भीड़हो गयी है । | (एकत्र, एकत्रित) |
| 5- यहघटना है । | (ऐतिहासिक, इतिहासिक) |
| 6- अभी आपकीक्या है ? | (आयु, अवस्था) |
| 7- बम एक प्रकार काहै । | (अस्त्र, शस्त्र) |
| 8- आपहैं । | (अल्पायु, दीर्घायु) |
| 9- द्वितीय विश्वयुद्ध का1939 में हुआ । | (श्रीगणेश, आरम्भ) |
| 10- वह आजकल रोगहै । | (रहित, विहीन) |

प्रश्न 6. निम्नलिखित अनेक शब्दों के लिए एक शब्द लिखें ।

(अंक-5)

- | | |
|--|--------------------------|
| 1- जहाँ प्राचीन वस्तुओं का संग्रह हो । | 2- पहाड़ पर चढ़ने वाला । |
| 3- राह दिखानेवाला । | 4- कानून के विरुद्ध । |
| 5- शरण में आया हुआ । | |

प्रश्न 7. निम्नलिखित अंको को शब्दों में लिखें।

(अंक-5)

- | | | | | |
|-------|-------|-------|-------|-------|
| 1- 39 | 2- 95 | 3- 89 | 4- 67 | 5- 79 |
|-------|-------|-------|-------|-------|

प्रश्न 8. निम्नलिखित शब्दों के वाक्य बनाएं जिससे उनके अर्थ स्पष्ट हो सकें ।

(अंक-10)

- | | |
|---------------|------------|
| 1- (क) अभय | (ख) उभय |
| 2- (क) परिणाम | (ख) परिमाण |
| 3- (क) नियत | (ख) नीयत |
| 4- (क) पवन | (ख) पावन |
| 5- (क) समान | (ख) सामान |

प्रश्न 9. निम्नलिखित वाक्यांशों के हिंदी पर्याय लिखें ।

(अंक-10)

- 1- A Brief note is placed below.
- 2- Acknowledge receipt.
- 3- Date and time of Receipt.
- 4- Admissible under rules.
- 5- As directed.
- 6- In public interest.
- 7- For Consideration.
- 8- Charge handed over.
- 9- Ex-parte enquiry.
- 10- Final concurrence is accorded.

CENTRAL PUBLIC WORKS DEPARTMENT
DEPARTMENTAL EXAMINATION IN HORTICULTURE – 2023

SECTION OFFICER HORTICULTURE

Time : 3 Hours

Max. Marks : 100

Notes : Attempt any five question. All question carry equal marks.

1. Explain the importance of ongoing maintenance in landscaping and provide examples of maintenance tasks.
2. Define landscaping and discuss its primary objectives in outdoor space design.
3. Explain the elements of landscape design and their importance in creating visually appealing environments.
4. Describe styles of gardening and elaborate the detailed features of Mughal and Persian Garden.
5. Describe the various types of grasses used in the preparation of lawn in the sunny and shady areas and its merits and demerits.
6. Short Notes of the following
 - (i) Drone application in the Horticulture and Landscaping.
 - (ii) Artificial intelligence in the Horticulture and Landscaping.
 - (iii) Hydroponics
 - (iv) Urban Horticulture and Landscaping.
 - (v) Sculptures and Statues in Horticulture and Landscaping.