

Admission to the “One Year Advanced Diploma on Construction Safety” Course
(2021-2022 Session)

(Accredited by WB State Council of Technical & Vocational Education and Skill Development)

Online applications are invited for admission to the above One-year **full-time day course** conducted by the State Labour Institute under the Labour Department, Govt. of West Bengal.

(View Course Curriculum-Annexure A)

No of Seats:

State Labour Institute, Government of West Bengal offers **One year Advanced Diploma on Construction Safety** Course only at Kolkata Centre

Name of the Centre	No of Seats	
	Non sponsored candidates	Sponsored Candidates
State Labour Institute, Kolkata P-3, CIT Scheme, VII-M Manicktala Main Road, P.O. Kankurgachi, Kolkata, Pin -700054	30	05

(1) Eligibility Criteria:

For Non-Sponsored Candidates: (i) Degree/Diploma in Mechanical, Civil, Structural or Construction Engineering recognized by the State Government or (ii) Science Graduate (Physics, Chemistry & Mathematics) from a recognized university

For Sponsored Candidates: Requisite qualification as stated above along with work experience of working in a construction or other industrial organization for at least one year. The Employer has to certify the candidate in proper format **(View Format of Certification-Annexure B)**

(2) Selection Procedure :

A. Non Sponsored candidates will be selected through an admission test

Date of Admission Test (tentative): 12th December, 2021 (SUNDAY)

The Admission Test will be of 100 marks having General Knowledge & Current Affairs, Logical Reasoning, Mathematical Ability and English Grammar & Composition. (View Sample Question Paper-Annexure C)

- B. Sponsored candidates will be selected through an Interview tentatively in the month of December, 2021, the date of which will be communicated later.

Admit Card for the admission test and interview will be available Online before Admission Test/Interview

- (3) Course Fee:** (one time course fee to be deposited online after selection through admission test/interview)

For Non-Sponsored Candidates: **Rs 8,000/-**

For Sponsored Candidates: **Rs 12,000/-**

- (4) Reservation of seats:**

As per Rules of Government of West Bengal

- (5) Application:**

The candidates have to fill up online application form.

The last date for submission of online application 20.11.2021

Applicants have to upload Scanned copies of documents at the time of application
(View List of Documents to be uploaded-Annexure D)

- (6) Application Fee (Non Refundable): Rs.100/-**

Candidates are required to pay application Fees in favour of **State Labour Institute** through **online mode of payment** in the following account:

Name of the Account: **Director, State Labour Institute**
Account No: **0263104000061375**
Bank & Branch: **IDBI Bank, Kankurgachi Branch**
IFSC Code: **IBKL0000263**

Applications found incomplete /defective / without application Fees / will be rejected.

Director
State Labour Institute

APPLY ONLINE

Annexure A

Course Curriculum

STATE LABOUR INSTITUTE

P-3, CIT Scheme VII-M, Maniktala Main Road, Kankurgachhi, Kolkata-700054

Phone : 033-2320-8854, 033-2301963

Email: statelabourinstitute@gmail.com **Website:** wbsli.org

Syllabus for **One year “ADVANCED DIPLOMA ON CONSTRUCTION SAFETY”**

(Accredited by WB State Council of Technical & Vocational Education and Skill Development)

Course Curriculum: Divided into two Semesters-each semester consist of Six (6) papers of 100 marks each

Semester-I

Paper	Topic
Paper-I	Safety Management-I
Paper-II	Safety Management-II
Paper-III	Construction Safety Engineering-I
Paper-IV	Construction Safety Engineering-II
Paper-V	Appraisal, Analysis, Inspection and Control Procedures
Paper-VI	Statutory Provisions on Construction Safety

Semester-II

Paper	Topic
Paper-VII	Occupational Health and Safety-I
Paper-VIII	Occupational Health and Safety-II
Paper-IX	Safety in Construction Operation-I
Paper-X	Safety in Construction Operation-II
Paper-XI	Field Visit, Case study & Report Submission
Paper-XII	Seminar & Viva-Voce

Paper	Topic
Paper-I	Safety Management-I
1.1	Introduction to Health, Safety, Welfare and Environment
1.2	Principles of Accident Prevention & Risk Management
1.3	Organizational Behaviour and Safe Project Management
Paper-II	Safety Management-II
2.1	Safety Education and Training
2.2	Safety Organization
2.3	Management Information System
Paper-III	Construction Safety Engineering-I
3.1	Manual Handling of Materials
3.2	Mechanical Handling of Materials
3.3	Stacking, Storage and Handling Construction Materials
3.4	Safety in use of Construction Machinery and Equipment
3.5	Hand Tools, Portable & Hydraulic Tools
Paper-IV	Construction Safety Engineering-II
4.1	Housekeeping
4.2	Industrial Lighting
4.3	Ventilation and Heat Control
4.4	Electrical Safety
4.5	Fire Safety
4.6	Environmental Pollution

Paper-V	Appraisal, Analysis, Inspection and Control Procedures
5.1	Construction Site and Equipment Safety Appraisal & Control Techniques
5.2	Hazard Identification Techniques
5.3	Accident Investigation Reporting and Analysis
5.4	Measurement and Control of Performance
Paper-VI	Statutory Provisions on Construction Safety
6.1	Safety & Law-Indian Standards on Construction Safety
6.2	Safety & Law- International Standards and References
6.3	Provisions relating to Safety, Health & Environment in other important legislations
Paper-VII	Occupational Health & Safety -I
7.1	Chemical & Biological Hazards at Construction Operation/Projects & Control
7.2	Physical and Psychological Health Hazards and Control
7.3	Work Physiology & Ergonomics
Paper-VIII	Occupational Health & Safety-II
8.1	Occupational Health Safety (OHS)
8.2	Personal Protective Equipment (PPEs)
8.3	Welfare Facilities
Paper-IX	Safety in Construction Operation-I
9.1	Temporary Structure at Work Site
9.2	Underground Works
9.3	Above Ground Works
9.4	Work at Height

9.5	Under Water Operations & Working around Water Bodies
9.6	Safety in Demolition Operations
Paper-X	Safety in Construction Operation-II
10.1	Confined Space
10.2	Prestressed Concrete Structure
10.3	Movement of Materials and Personnel
10.4	Blasting Operation Related Safety (Including Handling, Storing of Explosives Related Safety)
10.5	Road Works
10.6	Special Works
10.7	Special Operations
Paper-XI	Field Visit, Case Study & Report Submission
Paper-XII	Seminar & Viva-Voce

Annexure B

Format of Certification

NO OBJECTION CERTIFICATE
(In official letter pad)

To
The Director
State Labour Institute
Kolkata-700054

This is to certify that Sri/Smt _____, residing
at _____, is working in this organization as _____
w.e.f _____.

This organization has no objection in allowing Sri/Smt
_____ to undertake **Advanced Diploma on Construction Safety**
Course (One Year, Regular) for 2021-22 session.

Authorized Signatory

Annexure C

Sample Question Paper

MODEL QUESTIONS FOR ADMISSION TEST

One year Advanced Diploma in Construction Safety

(Affiliated with West Bengal State Council of Technical & Vocational Education and Skill Development)

Total Marks: 100

Time: 90 minutes

English Language:	20 Marks
General Knowledge & Current Affairs:	30 Marks
Mathematical Ability:	30 Marks
Logical Reasoning:	20 Marks

ENGLISH LANGUAGE

I. Fill in the blanks with the appropriate word:

1. To err is ____ to forgive is divine.
(a) human
(b) inhuman
(c) natural
(d) blunder
2. My mother prefers drinking tea ____ coffee.
(a) than
(b) to
(c) over
(d) on
3. My teacher congratulated me ____ my results.
(a) for
(b) on
(c) to
(d) in
4. I could not buy the book ____ it was out of print.
(a) for
(b) because
(c) as
(d) of
5. Never waste all your money on purchase of ____ items.
(a) important
(b) trivial
(c) excellent
(d) significant

II. Select the option that has the correct meaning:

1. Hard and fast
a. Strict
b. Solid
c. Fast moving
d. Hard surface

2. A red-letter day
- a. A red coloured letter
 - b. A day of accidents
 - c. An important day
 - d. A day of receiving letters

3. Loss of sleep
- a. Infection
 - b. Insomnia
 - c. Sleepy
 - d. Illegal

III. Select the appropriate word for the given words/sentence:

1. A job carrying no salary.
- a. Honorary
 - b. Memorandum
 - c. Honorarium
 - d. Memento
2. A material through which water cannot pass.
- a. Opaque
 - b. Waterproof
 - c. Aquatic
 - d. Fragile

IV. Murderer of Father is called

- a. Homicide
- b. Patricide
- c. Regicide
- d. Infanticide

V. One looking only dark side of things

- a. Optimist
- b. Pessimist
- c. Omnipotent
- d. Omnipresent

VI. Which word is opposite to “brave”?

- a. Timid
- b. Sorry
- c. Bold
- d. Courage

VII. Which word is a synonym of “tough”?

- a. Tender
- b. Hard
- c. Wild
- d. Flexible

VIII. Change from direct to indirect speech: The teacher said to the student, "Milk is white."

- a. The teacher told the student that milk was white.
- b. The teacher told the student that milk is white.
- c. The teacher told the student that milk will be white.
- d. The teacher told the student if milk is white.

IX. (Question 1-5) In the following passages, there are blanks, and each blank has been numbered. Find out the word which fits the blank appropriately:

Childhood is a time when there are ____ (1) responsibilities to make life difficult. If a child ____ (2) good parents, he is cared, looked ____ (3) and loved whatever he may do. It is improbable that he will ever again in his life ____ (4) given so much without saving to do anything ____ (5) return.

1. a. many
b. little
c. few
d. more

2. a. had
b. have
c. has
d. will have

3. a. up
b. at
c. after
d. around

4. a. is
b. has
c. are
d. be

5. a. or
b. in
c. as
d. of

General Knowledge & Current Affairs: 30 marks

1. If the distance between the earth and the sun were twice what it is now, the gravitational force exerted on the earth by the sun would be
- (a) twice as large as it is now
 - (b) four times as large as it is now
 - (c) half of what it is now
 - (d) one – fourth of what it is now
2. The weight of a body is
- (a) the same everywhere on the surface of the earth
 - (b) maximum at the poles
 - (c) maximum of the equator
 - (d) more on the hills than in the plains

3. A person weighs more in a lift, which is
 - (a) moving up with a constant velocity
 - (b) moving down with a constant velocity
 - (c) accelerating upward
 - (d) accelerating downward
4. The period of revolution of a geostationary satellite is
 - (a) 24 hours
 - (b) 30 days
 - (c) 365 days
 - (d) changing continuously
5. The density of sea water increases as
 - (a) depth and salinity decrease
 - (b) depth decreases and salinity increases
 - (c) depth decreases and salinity decreases
 - (d) depth and salinity increase
6. Fullerene is
 - (a) An allotrope of Carbon
 - (b) a synonym of carborundum
 - (c) Artificial emery
 - (d) A compound of carbon
7. The unit of radioactivity is
 - (a) Plank
 - (b) Einstein
 - (c) Curie
 - (d) None of the above
8. Red is used as a danger signal because
 - (a) Blood is red
 - (b) Red light is scattered least by air molecules
 - (c) Red colour is easily available
 - (d) Red colour is soothing for eye
9. The energy radiated by the sun is because of
 - (a) Nuclear fusion
 - (b) Nuclear fission
 - (c) Radioactive decay
 - (d) Photoelectric effect
10. The scientific study of landforms, their processes, form and sediments at the surface of the Earth is known as
 - (a) Geomorphology
 - (b) Geomythology
 - (c) Geophysics
 - (d) Glaciology
11. The term PVC used in Plastic Industry stands for
 - (a) Polyvinyl chloride
 - (b) Polyvinyl carbonate
 - (c) Phosphorous vanadium chloride
 - (d) None of the above

12. The chemical name for vinegar is
(a) Citric acid
(b) Acetic acid
(c) Malic acid
(d) Lactic acid
13. The presence of which of the mineral in drinking water is good?
(a) K
(b) Ca
(c) As
(d) Fe
14. The purest form of Iron is
(a) Stainless Steel
(b) Cast Iron
(c) Iron turning
(d) Wrought Iron
15. Which among the following is responsible for destroy of Ozone layer
(a) Carbon monoxide
(b) Carbon diode
(c) Chlorofluorocarbon
(d) Mercuric oxide
16. Who won Gold medal for India in Tokyo Olympics, 2021?
(a) Neeraj Chopra
(b) Ravi Rahia
(c) Pramod Bhagat
(d) Bhavina Patel
17. Which is the scheme for adolescent girls in West Bengal?
(a) Shikhasree
(b) Alosree
(c) Kanyasree
(d) SabujerPorosh
18. Leaning Tower of Pisa is located in which country?
(a) Egypt
(b) Russia
(c) Italy
(d) Germany
19. Name the border between Afghanistan and Pakistan?
(a) Radcliff Line
(b) McMahon
(c) Durand
(d) 17th Parallel
20. The study of universe is known as
(a) Astrology
(b) Astronomy
(c) Cosmology
(d) Geology
21. The shape of the raindrop is spherical due to
(a) Viscosity
(b) Surface tension
(c) Elasticity
(d) Gravitation

22. What does the "19" in "COVID-19" refer to?
- (a) There are 19 variants of the coronavirus.
 - (b) There are 19 symptoms of coronavirus disease.
 - (c) This is the 19th coronavirus pandemic.
 - (d) The coronavirus and the disease it causes were identified in 2019.
23. What does the five rings in the Olympic represent?
- (a) Five important Games
 - (b) Five Continents
 - (c) Five Oceans
 - (d) None of the above
24. Who is the author of "Oliver Twist"?
- (a) Charles Dickens
 - (b) Leo Tolstoy
 - (c) Salman Rushdie
 - (d) Shakespeare
25. Which of the following is not a folkdance belonging to the Union Territory of Jammu and Kashmir?
- A. Dhumal
 - B. Hafiza
 - C. Rouf
 - D. Dangi
26. Tsomgo Lake or Changu Lake, a glacial lake, is situated in the state of
- A. Uttarakhand
 - B. Himachal Pradesh
 - C. Sikkim
 - D. Arunachal Pradesh
27. Who was the first Indian in space?
- A. Sunita Williams
 - B. Kalpana Chawla
 - C. Ritu Karidhal Srivastava
 - D. Tessy Thomas
28. Which is the highest peak of West Bengal?
- A. Kanchenjunga
 - B. Ghum
 - C. Sandakphu
 - D. Deolo
29. Which is the source of the river Brahmaputra?
- A. Manas Sarovar
 - B. Sengge Kanbab Glacier
 - C. Rupkund
 - D. Pangong Lake
30. Who is the Father of Modern Economics?
- A. Adam Smith
 - B. Amartya Sen
 - C. Charles Babbage
 - D. Md. Eunus

Mathematics: 30 marks **15x2=30**

1. A tin of oil was $\frac{5}{4}^{\text{th}}$ full. When 6 bottles of oil were taken out and 4 bottles of oil were poured into it, it was $\frac{3}{4}^{\text{th}}$ full. How many bottles of oil can the tin contain?
A. 45.
B. 39.
C. 42.
D. 40.
2. 2 pens and 3 pencils cost Rs 86. 4 pens and a pencil cost Rs 112. Find the total cost of one pen and one pencil?
A. Rs. 35.
B. Rs. 37.
C. Rs. 36.
D. Rs. 40.
3. The average age of a class of 39 students is 15 years. If the age of the teacher be included then the average increases by 3 months. Find the age of the teacher.
A. 20 years
B. 23 years
C. 25 years
D. 21 years
4. If the side of a square is increased by 6 % then the area of the square is increased by ____?
A. 12.36%
B. 13.36%
C. 11.36%
D. 12.26%
5. Two trains each 100 m long moving in opposite direction, cross each other in 8 seconds. If one is moving twice as fast as the other, then the speed of the faster train is _____.
A. 60 km/hr
B. 61 Km/hr
C. 59 Km/hr
D. 65 Km/hr
6. A tank is 25 m long, 12 m wide and 6 m deep. What is the cost of plastering its walls and bottom @ 75 paise per sqm?
A. Rs 475/-
B. Rs 474/-
C. Rs 501/-
D. Rs. 425/-
7. Of the 3 numbers the sum of the first two is 45, the sum of the second and third is 55 and the sum of the third and first is 90. Find the third number.
A. 40
B. 30
C. 44
D. 35

8. In an election between two candidates, one got 55% of the total valid votes. 20% of the votes were invalid. If the total number of votes was 7500, the number of valid votes the other candidate got was _____?
- A. 2600
 - B. 2665
 - C. 2700
 - D. 2775
9. A sells an article at Rs 400 to B at a profit of 20%. B then sells it to C making a profit of 10%. How much does C pay B?
- A. Rs 528/-
 - B. Rs 529/-
 - C. Rs. 530/-
 - D. Rs. 527/-
10. A and B are two alloys of Gold and Copper prepared by mixing metals in the ratio 7:2 and 7:11 respectively. If equal quantities of the alloys are melted to form a 3rd Alloy C, the ratio of Gold and Copper will be _____
- A. 7:4
 - B. 7:5
 - C. 6:5
 - D. 7:2
11. Anand and Deepak started a business investing Rs22, 500/- and Rs35, 000/- respectively. Out of a total profit of Rs 13800, Deepak's share is _____
- A. Rs. 8400
 - B. Rs. 8200
 - C. Rs. 8000
 - D. Rs. 8450
12. An industrial loom weaves 0.128 mts of cloth every second. Approximately how many seconds will it take for the loom to weave 25 mts of cloth?
- A. 135 second
 - B. 195 second
 - C. 185 second
 - D. 190 second
13. A boat takes 19 hours for travelling downstream from point A to point B and coming back to point C, which is mid-way between A & B. If the velocity of the stream is 4 km/hr and the speed of the boat in still water is 14 km/hr, what is the distance between A & B.
- A. 175 km
 - B. 180 km
 - C. 181 km
 - D. 176 km
14. Find the length of the longest pole that can be placed in a room 12 m long, 8 m broad and 9m high?
- A. 18 m
 - B. 17 m
 - C. 15 m
 - D. 11 m

15. If $a * b = ab + b - a$, what is the value of c such that $c * (2 * 5) = 97$?

- A. 7
- B. 8
- C. 6
- D. 9

Logical Reasoning -20 marks

1. If ROME is written as MORE then DARE is written as

- (a) RDAE (b) RDEA (c) READ (d) RADE

2. Find the missing term in the series. 1, 6, 15, ?, 45, 66, 91

- (a) 25 (b) 26 (c) 27 (d) 28

3. Giant: Dwarf :: Genius : ?

- (a) Intelligent (b) Wicked (c) Idiot (d) Tiny

4. Wrist: Elbow :: Ankle : ?

- (a) Heel (b) Finger (c) Foot (d) Knee

5. Find the odd one out

- (a) Zebra (b) Lion (c) Tiger (d) Horse (e) Giraffe

6. Find the odd one out :

- (a) Tomato (b) Carrot (c) Ginger (d) Potato (e) Turmeric

7. Choose the number pair /group which is different from others:

- (a) 50__66, (b) 32__48 (c) 64__80 (d) 63__77

8. Chose the group of letters which is different from others

- (a) BD (b) IK (c) PN (d) SU (e) WY

9. If $A=2$, $M=26$, $Z=52$ then $BET = ?$

- (a) 44 (b) 54 (c) 64 (d) 72

10. Find the wrong number in the series

400, 200, 100, 50, 30, 12.5

- (a) 100 (b) 50 (c) 30 (d) 12.5

11. Find the missing term: True, Fault, Banana, ?

- (a) Analyse (b) Apple (c) False (d) Wrong

12. Find the missing alphabet in the series: A, E, C, G, E, I, ?

- (a) K (b) M (c) C (d) G

13. Arrange the letters as they occur in the dictionary

1. Tune 2. Tone 3. Taste 4. Truth

- (a) 1234 (b) 3241 (c) 1342 (d) 2314

14. Ram is taller than Mohan and Soham, while Soham is taller than Shyam. Also Mohan is taller than Soham. Who amongst the following is the shortest?

- (a) Shyam (b) Mohan (c) Soham (d) Ram

15. If $9 \times 5 \times 2 = 529$ and $4 \times 7 \times 2 = 724$, then $3 \times 9 \times 8 = ?$

- (a) 427 (b) 983 (c) 216 (d) 938

16. Ritu is going Northwards. She turns right, moves some distance and again turns to her right. After moving some distance, she turns to her left. In which direction now she is going?

- (a) East (b) West (c) North (d) South

17. Introducing Reena, Monika said "She is the only daughter of my father's only daughter". How is Monika related to Reena?

- (a) Aunt (b) Niece (c) Daughter (d) Mother

18. Which of the conclusion logically follows the statements given below :

Statements: Some stars are planets
All planets are galaxies

Conclusion I: Some stars are galaxies
Conclusion II : All planets are galaxies

- (a) Only I (b) Only II (c) Both I & II (d) None of the above

19. If 1st October is Sunday, then 1st November will be

- (a) Monday (b) Tuesday (c) Wednesday (d) Thursday

20. If $3 \times 2 = 10$ and $5 \times 4 = 18$, then $6 \times 5 = ?$

- (a) 22 (b) 26 (c) 30 (d) 42
-

Annexure-D

List of scanned copies of Documents to be uploaded at the time of application

1. Colour Photograph of the applicant (in *JPG/JPEG*)
2. Proof of Date of Birth (in PDF)
3. Proof of address (in PDF)
4. Mark sheet of Graduation/Diploma (as applicable) (in PDF)
5. Caste Certificate (in PDF) (if applicable)
6. Employment Certificate (for sponsored candidates only) (in PDF)
7. Application fee transaction Document (in PDF)