

CP-9439

Sub. Code

91012

B.Sc. DEGREE EXAMINATION, NOVEMBER 2018

First Year

Fire and Industrial Safety

COMMUNICATIVE ENGLISH LANGUAGE

(2016 onwards)

Time : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. Mention four subjects which spring from the creative and intellectual faculties of human nature.
2. Whose view on courage is quoted by Indira Gandhi?
3. What did the Duke of Cambridge always keep in his hands?
4. What is the reason for Nehru's feeling of proud thankfulness?
5. What were inedible dishes described in Seton's Wildwood Wisdom?
6. Who is the author of "After Twenty Years"?
7. Give example sentences for
 - (a) Present continuous and
 - (b) Future perfect tense.

8. What is the use of auxiliaries?
9. Write the types of articles with an example.
10. What are the different types of degrees?

Part B

(5 × 5 = 25)

Answer **all** questions.

11. (a) Write a short note Indian attitude to burning social issues.

Or

- (b) Why can't the artist fit into a totalitarian set up?

12. (a) What is the strained relationship between the teacher and the student due to?

Or

- (b) The purpose that a referee can serve at debates, according to Lynd.

13. (a) How does Sarojini Naidu convey poetically that a low state is due to ourselves?

Or

- (b) How did the conjurer take revenge?

14. (a) What are the different types of Pronouns? Explain with examples.

Or

- (b) What does the adverb modify? Explain its uses with examples.

15. (a) Write a note on sentence pattern with appropriate examples.

Or

- (b) What are prepositions? Explain.

Part C (3 × 10 = 30)

Answer **all** questions.

16. (a) What are living stone's views on education?

Or

- (b) What are the conflict be resolved?

17. (a) What are the Gardiner's views on the desirability?

Or

- (b) Write an essay on Sarojini Naidu's vision of love, religion and patriotism.

18. (a) Explain how auxiliaries are used as models.

Or

- (b) Define positive and superlative forms of comparison.
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CP-9440

Sub. Code

91013

B.Sc. DEGREE EXAMINATION, NOVEMBER 2018.

First Year

Fire and Industrial Safety

FIRE SAFETY PREVENTION AND CONTROL

(2016 onwards)

Time : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. Define vapour clouds.
2. Define fire triangle.
3. What are the types of water monitors?
4. When will you do maintenance for fire extinguishers?
5. Discuss on fire alarms and sirens.
6. Define CNG and its properties.
7. What are the type's petroleum storage tanks?
8. What is control room?
9. What are the Vulnerable Materials?
10. Define cold storage.

Part B

(5 × 5 = 25)

Answer **all** the questions

11. (a) Explain the classification of fire.

Or

(b) Define about components of hydrant systems.

12. (a) Describe about Fire Hazard Analysis (FHA).

Or

(b) Briefly explain fire requirements as per the Factories Act, 1948.

13. (a) Explain fire protection procedure in temporary occupancies.

Or

(b) Write briefly about exit requirements in educational institutions.

14. (a) Explain fire safety principles causes in godown.

Or

(b) Explain about the heat radiation hazards level.

15. (a) Describe electrical safety with the voltage operated ELCB.

Or

(b) Describe safety measures in Electric arc welding.

Part C

(3 × 10 = 30)

Answer **all** the questions.

16. (a) Explain the following :
- (i) Pool fire
 - (ii) Flash fire
 - (iii) jet fire
 - (iv) BLEVE
 - (v) UVCE.

Or

- (b) Explain emergency action plan.
17. (a) Explain the following on petroleum plant.
- (i) Fire protection system
 - (ii) Hydrant systems
 - (iii) Water monitors.

Or

- (b) Explain about the Fire safety measures for fire and explosion in transport.
18. (a) Explain basic requirements of fire fighting equipments in Transformers, DG sets, Substations.

Or

- (b) Explain about the Good practices in Electrical wiring for fire safety.

CP-9441

Sub. Code

91014

B.Sc. DEGREE EXAMINATION, NOVEMBER 2018

First Year

Fire and Industrial Safety

PERSONAL PROTECTIVE EQUIPMENTS

(2016 onwards)

Time : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** the questions.

1. What are the direct hazards associated with Eye injury?
2. List out the different types of helmet.
3. What are the Hazards associated with head Injury?
4. List out the different types of Goggles.
5. What are the emergency protections while chemical burns?
6. What are SCBA/SCUBA?
7. What is Noise?
8. List out the types of hand protection.
9. What are the four things to be kept in mind while selecting PPE?
10. Emergency measures for cuts and minor burns.

Part B

(5 × 5 = 25)

Answer **all** the questions.

11. (a) Explain Safety Headgear and other protective head gear.

Or

- (b) List out the different types of head protections and characteristics and protection against.

12. (a) Short notes on hearing protection aid.
Ear plug / Ear muff / canal caps.

Or

- (b) Explain temporary / permanent Hearing loss.

13. (a) How to maintain and care should be taken for safety Shoe?

Or

- (b) List out the types of aprons and about their protection.

14. (a) What are the limitations and cautions in use of respiratory protective devices?

Or

- (b) Brief - maintenance and care of respiratory type PPE.

15. (a) State points for successful implementation of an effective PPE programme.

Or

- (b) What kind of safety gears should use in work at height?

Part C

(3 × 10 = 30)

Answer **all** the questions.

16. (a) Explain major respiratory hazards.

Or

(b) Explain three basic types of PPE.

17. (a) Explain the types and characteristics of respirators.

Or

(b) Explain the types and characteristics of hand protectors.

18. (a) Explain the types and characteristics of eye protectors.

Or

(b) Explain Injuries associated with hand in workplace.

CP-9442

Sub. Code

91015

B.Sc. DEGREE EXAMINATION, NOVEMBER 2018

First Year

Fire and Industrial Safety

LIFTING EQUIPMENTS AND TRANSPORT SAFETY

(2016 onwards)

Time : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. What is forklift training?
2. Mention various control checks.
3. What is corrosion in sling?
4. What is a wear in chain sling?
5. What is the safe lifting angle for slings?
6. How a hand signal must be?
7. What is the standard accident prevention formula?
8. Define foresight.
9. Define EIP and HAZMAT.
10. What are the various statutory requirements in vehicle maintenance?

Part B**(5 × 5 = 25)**Answer **all** questions.

11. (a) Write short notes on stacking.

Or

(b) What are the advantages and disadvantages of electrical forklifts?

12. (a) Explain the five major factors affect the extent of permeation.

Or

(b) Write a short note on defects in chain sling.

13. (a) What are the steps to be followed while planning for a safe lift?

Or

(b) Explain the types of choker hitch.

14. (a) Explain the safety check before you start a bicycle.

Or

(b) What are the special techniques to be observed by two wheeler drivers?

15. (a) Write a short note on Rule 133-EIP.

Or

(b) Explain the safety tips on vehicular use of CNG.

Part C**(3 × 10 = 30)**Answer **all** questions.

16. (a) Explain about employees/workers.

Or

(b) Explain the safety precautions in storing corrosive substances.

17. (a) Explain the various lifting techniques.

Or

(b) Explain the basic rules for avoiding accident for a pedestrian.

18. (a) Explain in detail about the UN classification of dangerous goods.

Or

(b) Explain the guidelines for transportation of hazardous wastes.

CP-9443

Sub. Code

91016

B.Sc. DEGREE EXAMINATION, NOVEMBER 2018

First Year

Fire and Industrial Safety

SAFETY ON ELECTRICAL AND CHEMICAL HAZARD

(2016 onwards)

Time : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. What are the electrical injuries?
2. Write some tips to avoid dangerous shock.
3. What is static electricity?
4. What are the hazards present in static electricity?
5. What do you mean by IDLH?
6. What are routes of entry for chemicals?
7. What is the treatment for electric shock?
8. Define capacitor.
9. Write the preparation of offsite emergency plan.
10. What are the general responsibilities of the occupier?

Part B (5 × 5 = 25)Answer **all** questions.

11. (a) Write the instructions to avoid electrical injuries in detail.

Or

- (b) How will you save the electricity in compressed air system?

12. (a) Explain charge generating mechanism.

Or

- (b) Explain earthing and bonding.

13. (a) Write short notes on solvents and their hazards.

Or

- (b) Write short notes on acids and bases.

14. (a) Write the general duties of the occupier under the section 7-A (1) & (2) (a) (c).

Or

- (b) Briefly explain the international standards.

15. (a) Explain the notification of the major chemical accident.

Or

- (b) Briefly explain the flammable chemicals.

Part C (3 × 10 = 30)Answer **all** questions.

16. (a) What are the steps involved in the checklist for electrical installation?

Or

- (b) Explain the static electricity, hazards associated with static electricity and also write the control measures for it.

17. (a) Explain the classification of flammable liquids and write the control measures for it.

Or

- (b) Describe the Indian Electricity Act, 1910.

18. (a) What are the details to be furnished in Offsite Emergency Plan?

Or

- (b) What are the general responsibilities of:

- (i) Transporter
 - (ii) Driver
 - (iii) Owner.
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CP-9444

Sub. Code

91022

B.Sc. DEGREE EXAMINATION, NOVEMBER 2018

Second Year

Fire and Industrial Safety

COMMUNICATIVE ENGLISH LANGUAGE – ADVANCE

(2016 onwards)

Time : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** the questions.

1. Write briefly on the various types of communication.
2. What is telephone etiquette?
3. Explain “Homophones” with examples.
4. What are prepositional phrases?
5. Write about the use of unnecessary articles with examples.
6. Write briefly on the wrong position of adverbs in English usage.
7. What are the English vowels?
8. How does Gesture contribute to non-verbal communication?
9. Define “skimming” as a reading technique.
10. Why is it necessary to improve our handwriting?

Part B

(5 × 5 = 25)

Answer **all** the questions.

11. (a) What are the barriers to effective communication?

Or

- (b) Describe your parents and your native place.

12. (a) Write briefly on conditional clauses.

Or

- (b) Define Homonyms and give examples.

13. (a) Write a note on the use of infinitives.

Or

- (b) Give the difficulties that arise due to the verbs often confused, adverbs often confused and adjectives often confused.

14. (a) Write briefly about primary stress.

Or

- (b) Why is maintaining a good posture very important?

15. (a) Explain scanning and how does it help in reading effectively.

Or

- (b) How do you draft a telegram and an e-mail?

Part C

(3 × 10 = 30)

Answer **all** the questions.

16. (a) Write an essay on interview skills.

Or

- (b) What are the various kinds of composition?

17. (a) Write in detail on the various aspects of Non-verbal communication.

Or

- (b) Attempt an essay on English sounds, stress and intonation.

18. (a) Discuss the various methods to improve the listening and speaking skills.

Or

- (b) Write in detail on Note-making and report writing.
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CP-9445

Sub. Code

91023

B.Sc. DEGREE EXAMINATION, NOVEMBER 2018

Second Year

Fire and Industrial Safety

GENERAL SAFETY MANAGEMENT (PRINCIPLES AND POLICIES)

(2016 onwards)

Time : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. Define housekeeping.
2. What is frequency rate?
3. Write any 2 fuel saving tips.
4. What is MSME?
5. Write any 2 LPG hazards.
6. Write any 2 acts related to HSE.
7. What is occupational disease?
8. What are the types of PPE?
9. What are the classifications of cartridge type respirators?
10. Define In-Situ.

Part B

(5 × 5 = 25)

Answer **all** questions.

11. (a) Explain about 5 S principles.

Or

- (b) Explain the hazards and safety practices in LPG handling.

12. (a) Write a short note on compensation as per the employee compensation act 1923.

Or

- (b) Write short notes on classification of respiratory PPE.

13. (a) Write a short note on behavioral based safety training.

Or

- (b) What are the tags used in accident prevention?

14. (a) Write short notes on safety aspect of piped natural gas.

Or

- (b) Describe MSME act 2006.

15. (a) Write short notes on implementation of PPE among workers.

Or

- (b) Write short notes on health promotion training.

Part C

(3 × 10 = 30)

Answer **all** questions.

16. (a) Explain about the safety signages, signals and displays, notices and labels required to be provided under SHE regulations.

Or

- (b) Explain about the safety instructions for kids, elders and physically challenged persons.
17. (a) Explain in detail about Occupational health and safety training.

Or

- (b) Explain the responsibilities of a supervisor for safety at workplace.
18. (a) Explain do's and don'ts in brainstorming session.

Or

- (b) Explain the precaution for all hazards involved in domestic work.
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CP-9446

Sub. Code

91024

B.Sc. DEGREE EXAMINATION, NOVEMBER 2018

Second Year

Fire and Industrial Safety

**HEALTH ASPECTS, FOOD HYGIENE AND SAFETY
(HACCP)**

(2016 onwards)

Time : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** the questions.

1. Define BMI.
2. What are the contaminants in foods?
3. State — Food additives.
4. List one some of the important points to be observed while receiving and Inspecting deliveries.
5. Give some ideal refrigeration temperature for some perishable Food.
6. How does temperature influence in Food Industry?
7. Suggest storage temperature for below given Food
 - (a) Fresh Fish
 - (b) Cooked meat
 - (c) Dry Food intense
 - (d) Frozen Food.

8. Bring out necessity for an efficient cleaning program.
9. Give any four pesticides names.
10. Write the ISO standard for Food safety.

Part B

(5 × 5 = 25)

Answer **all** the questions.

11. (a) Compare — Solid waste and liquid waste.

Or

- (b) Explain the method of food preservation.

12. (a) Write about the types of diseases and their classification.

Or

- (b) How does storage of specific Foods?

- (i) Meat

- (ii) Pottery

- (iii) Egg

- (iv) Sea food

- (v) Dairy products.

13. (a) What is food labeling?

Or

- (b) Explain the street Food and obtain its diseases.

14. (a) Derive the basic rules from food safety standards for waiters, bartender.

Or

- (b) Explain the principle of HACCP.

15. (a) Discuss — Dry Food Storage.

Or

(b) Write about ISO14000 Environmental Management systems.

Part C

(3 × 10 = 30)

Answer **all** the questions.

16. (a) What are the factors which affect the microbes growth in Food?

Or

(b) Write Notes on Following;

(i) Viruses

(ii) Bacteria

(iii) Fungi.

17. (a) Write about the signs of spoilage in fresh dry, and preserved food?

Or

(b) What are the sanitary produce should follow while preparing, serving, holding the food?

18. (a) Provide an explanatory review on the sewage and contamination of water supply.

Or

(b) Give comprehensive notes on;

(i) Genetically Modified Food

(ii) Food Labeling.

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91025

B.Sc. DEGREE EXAMINATION, NOVEMBER 2018

Second Year

Fire and Industrial Safety

**OCCUPATIONAL HEALTH AND SAFETY
MANAGEMENT**

(2016 onwards)

Time : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** the questions.

1. What is Ergonomics?
2. What are the objectives of OHS?
3. What is housekeeping?
4. What are Acute and Chronic conditions?
5. Give the requirements of good work chair.
6. Define labeling what does a label contain.
7. Define the term health as per WHO.
8. What are the new patterns in working tire?
9. What is an eye injury?
10. What are boilers and pressure vessels?

Part B**(5 × 5 = 25)**Answer **all** the questions.

11. (a) Write short notes on lifting equipments operations and Safety.

Or

- (b) What is the first aid for respiratory failure?

12. (a) Write short notes on masking noise and injury to hearing.

Or

- (b) Discuss about signals and displays.

13. (a) Explain the various types of PPE's in prevention of chemicals.

Or

- (b) Briefly explain body heat balance and give protection against heat.

14. (a) Explain the important points while working in a sitting position.

Or

- (b) Discuss in details about hand and power tools selection.

15. (a) Explain the principle tasks of enterprise health services.

Or

- (b) Briefly explain overtime work and excessive hours of work.

Part C

(3 × 10 = 30)

Answer **all** the questions.

16. (a) Explain the methods of Noise control.

Or

(b) Explain the details about shift work.

17. (a) Write short notes on work place inspection.

Or

(b) Briefly explain about Lifting.

18. (a) Explain the accident involving in portable land and power tools.

Or

(b) Explain about duties of a safety committee.

CP-9448

Sub. Code

91026

B.Sc. DEGREE EXAMINATION, NOVEMBER 2018

Second Year

Fire and Industrial Safety

EHS LAWS (INTERNATIONAL STANDARDS AND REGULATIONS)

(2016 onwards)

Time : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. What is LOCK OUT and TAG OUT?
2. Define PPE.
3. What is housekeeping?
4. What are the types of ventilation?
5. What is FIRE?
6. What is machine guarding?
7. What is pressure vessel?
8. Define first aid.
9. Write the types of material handling?
10. What is noise?

Part B**(5 × 5 = 25)**Answer **all** questions.

11. (a) Write the details about EHS committee.
Or
(b) Write introduction about factory act 1948.
12. (a) Explain about PTW.
Or
(b) Explain about housekeeping and 5S.
13. (a) Explain about machine guarding.
Or
(b) Explain about fire prevention methods in industries.
14. (a) Explain about ladder and scaffolding safety.
Or
(b) Explain about disposal of waste in industries.
15. (a) Explain about ISO 9001.
Or
(b) Explain about ISO 14001.

Part C**(3 × 10 = 30)**Answer **all** questions.

16. (a) Explain about Tamilnadu safety officer rules 2005.
Or
(b) Explain about lighting and ventilation as per the Laws.

17. (a) Explain about Emergency Response Plan (ERP).

Or

(b) Explain about compressed gas cylinder rules 1981.

18. (a) Explain about OHSAS 18001.

Or

(b) (i) Explain about Safe operating practices and procedure.

(ii) Explain about radiation hazards.

CP-9449

Sub. Code

91011

B.Sc. DEGREE EXAMINATION, NOVEMBER 2018

First Year

Fire and Industrial Safety

COMMUNICATIVE ENGLISH

(Upto 2015 batch)

Time : 3 Hours

Maximum : 75 Marks

Part A

(5 × 3 = 15)

Answer **all** questions.

1. Which are the different stages in the process of writing?
2. Give a few tips on preparing resume.
3. How important is the role of body language in interpersonal communication?
4. How do you avoid nervousness while presentation?
5. Write a note on interview etiquette.

Part B

(5 × 12 = 60)

Answer **all** questions.

6. (a) Draft an E-mail letter to a manufacturing company of mobile phones, requesting them to send you the catalogue of latest mobile phones.

Or

- (b) Describe the various type of letters.

7. (a) Write notes on the following :

- (i) Record of visitors
- (ii) Check list
- (iii) Confidential papers.

Or

(b) Write an essay on agreement of verb.

8. (a) Write an essay on various forms of communication.

Or

(b) Explain the barriers to effective communication.

9. (a) Illustrate briefly on requirements of a good presentation.

Or

(b) Write in detail on tips and techniques for great presentation.

10. (a) Write a covering letter and resume to be sent to the recruiting manager, XYZ, Bangalore for the post of software Engineer.

Or

(b) What are types of selection interviews? Explain.

CP-9450

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91012

B.Sc. DEGREE EXAMINATION, NOVEMBER 2018

First Year

Fire and Industrial Safety Management

FIRE PREVENTION AND CONTROL

(Upto 2015 batch)

Time : 3 Hours

Maximum : 75 Marks

Answer all questions.

Part A

(5 × 3 = 15)

1. Briefly explain the types of fire.
2. List the type of fire extinguishers. Write the place of application for each.
3. Explain the various types of fire suppression system.
4. Define fire load and fire resistant.
5. How do the explosion parameters are considered?

Part B

(5 × 12 = 60)

6. (a) Explain about theory of flash fire and jet fire.

Or

- (b) Write short notes on :
 - (i) Vapour clouds
 - (ii) Shock waves
 - (iii) Auto ignitions.

7. (a) Explain any two types of fire extinguishers.

Or

- (b) Explain with neat diagram about the layout of stand pipes and fire station.

8. (a) Briefly explain the Halon system with neat sketch.

Or

- (b) Write short notes on :

- (i) Sprinkler
- (ii) Emulsifier
- (iii) Tank farms
- (iv) Fire fighting system.

9. (a) Briefly explain the structural fire protection and structural integrity.

Or

- (b) Write short notes on :

- (i) Fire certificates
- (ii) Fire testing
- (iii) Snookers
- (iv) Fire safety.

10. (a) Describe about the Hazardous in LPG.

Or

- (b) What are the rules and act for systems to protect Building Explosion?

CP-9451

Sub. Code

91013

B.Sc. DEGREE EXAMINATION, NOVEMBER 2018

First Year

Fire and Industrial Safety Management

ERGONOMICS

(Upto 2015 Batch)

Time : 3 Hours

Maximum : 75 Marks

Part A

(5 × 3 = 15)

Answer **all** questions.

1. What is ergonomics?
2. What is Noise and effects of Noise?
3. What is ventilation and illumination?
4. What is Rest time?
5. Mention unsafe work habits in manual material handling.

Part B

(5 × 12 = 60)

Answer **all** questions.

6. (a) Explain about shop environment and its effects.

Or

- (b) Explain human factors, Bio mechanics and ergonomics.

7. (a) Write short notes on
- (i) Heat stress
 - (ii) Types of glares
 - (iii) Cold stress
 - (iv) Dehydration.

Or

- (b) Explain effect of Noise and Control of Noise pollution.

8. (a) Explain briefly the Labour colony management.

Or

- (b) Mention some of welfare facilities in industries.

9. (a) Explain organization structure.

Or

- (b) Explain working time and rest time as per factories Act 1948.

10. (a) Explain about manual material handling.

Or

- (b) Explain fork lift and crane safety.
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CP-9452

Sub. Code

91014

B.Sc. DEGREE EXAMINATION, NOVEMBER 2018

First Year

Fire and Industrial Safety

ELECTRICAL SAFETY

(Upto 2015 Batch)

Time : 3 Hours

Maximum : 75 Marks

Part A

(5 × 3 = 15)

Answer **all** the questions.

1. Define Voltage.
2. What is corona effect?
3. What is Fuse?
4. Illustrate Electrocution.
5. Expand :
 - (a) ILO
 - (b) ISO
 - (c) ANSI
 - (d) OSHA

Part B

(5 × 12 = 60)

Answer **all** the questions.

6. (a) Explain about Indian Electricity Act and rules.

Or

- (b) Define about CPR (Cardio Pulmonary Resuscitation).

7. (a) Explain the hazards in Electricity and types.

Or

(b) Define safety in handling in portable electrical equipments.

8. (a) Illustrate : Fuse and its types.

Or

(b) What is ICB and GFCI?

9. (a) Explain about LOTO.

Or

(b) Explain about PTW and its types.

10. (a) Explain about classification of hazardous zones.

Or

(b) How fire cause by electricity and safety precaution for electrical fire?

CP-9453

Sub. Code

91015

B.Sc. DEGREE EXAMINATION, NOVEMBER 2018

First Year

Fire and Industrial Safety Management

ENVIRONMENTAL STUDIES

(Upto 2015 Batch)

Time : 3 Hours

Maximum : 75 Marks

Part A

(5 × 3 = 15)

Answer **all** questions.

1. Define Deforestation.
2. Explain classification of water pollutions.
3. What is LUX meter?
4. Explain about Incineration and Verification.
5. Illustrate Absorption and adsorption.

Part B

(5 × 12 = 60)

Answer **all** questions.

6. (a) Explain about classification and properties of air pollutions.

Or

- (b) Explain about Automobile pollution.

7. (a) What is common brakemen for chemical industries and tanneries?

Or

- (b) Explain about classification of water pollutants.

8. (a) Explain about sampling and analysis.

Or

- (b) Explain about maintenance and control of gaseous emission.

9. (a) Explain pollution control in petroleum product industry.

Or

- (b) Explain pollution control in dying and pigment industries.

10. (a) Explain about Incineration and verification methods in waste managements.

Or

- (b) What is recycling and reuse in waste management?

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91021

B.Sc. DEGREE EXAMINATION, NOVEMBER 2018

Second Year

Fire and Industrial Safety Management

SAFETY ACCOUNTING

(Upto – 2015 batch)

Time : 3 Hours

Maximum : 75 Marks

Part A

(5 × 3 = 15)

Answer **all** the questions.

1. Write short notes
 - (a) Exponential smoothing.
 - (b) Moving averages.
2. What is probability? And its types.
3. What are the components of time series?
4. What is probability? And its types.
5. Define semi average method.

Part B

(5 × 12 = 60)

Answer **all** the questions.

6. (a) Calculate the Karl Pearson co-efficient of correlation from the following data and interrupt the value mark in statistics and accountancy.

 $x: 40 \quad 60 \quad 80 \quad 100 \quad 120$
 $y: 20 \quad 30 \quad 50 \quad 70 \quad 90$

Or

- (b) Explain Addition theorem and prove it.

7. (a) Find frequency distribution and individual series of moments.

 $X: 2 \quad 3 \quad 4 \quad 5 \quad 6$
 $F: 1 \quad 3 \quad 7 \quad 3 \quad 1$

Or

- (b) Calculate the regression analysis taking Equation of item from the means of X and Y.

 $x: 6 \quad 2 \quad 10 \quad 4 \quad 8$
 $y: 9 \quad 11 \quad 5 \quad 8 \quad 7$

8. (a) (i) What is sampling distribution?
(ii) Discuss the T-distribution and chi square distribution.

Or

- (b) Discuss one way and two way classification.

9. (a) Solve regression equation.

 $x: 15 \quad 18 \quad 20 \quad 25 \quad 30$
 $y: 10 \quad 20 \quad 25 \quad 10 \quad 5$

Or

(b) Solve by Moments method.

x : 10 15 20 25 30

y : 15 20 25 10 5

10. (a) Calculate 3 year average of production given below draw the trend.

Year: 1995 96 97 98 99 2000 01 02

Production: 45 60 30 37 62 66 40 56

Year: 03 04 05 06 07 08 09

Production: 63 70 24 32 70 95 102

Or

(b) Estimate the trend value using the data given by taking four year moving average.

Year: 1996 97 98 99 2000 01 02

Production: 65 85 79 34 75 47 42

Year: 03 04 05 06 07 08 09

Production: 10 32 15 65 34 50 07

CP-9455

Sub. Code

91022

B.Sc. DEGREE EXAMINATION, NOVEMBER 2018

Second Year

Fire and Industrial Safety Management

PERSONALITY DEVELOPMENT

(Upto – 2015 batch)

Time : 3 Hours

Maximum : 75 Marks

Part A

(5 × 3 = 15)

Answer **all** questions.

1. What do you mean by super ego?
2. What is assertiveness?
3. What are the outcomes of low Self Esteem?
4. Write short notes about stimuli and motives.
5. Expand SMART.

Part B

(5 × 12 = 60)

Answer **all** questions.

6. (a) Explain the factors determining an individual personality.

Or

- (b) What are the Do's and Don'ts to develop positive Self esteem?

7. (a) Explain the hurdles in achieving success.

Or

(b) List out factors which affects attitude.

8. (a) Write short notes on work ethics and leadership qualities.

Or

(b) Discuss in detail SMART goals and their advantages.

9. (a) Point out elaborately the advantages of self esteem.

Or

(b) How does goal setting fails and in which way you overcome the failure?

10. (a) What is attitude? How is it affecting an individual's personality?

Or

(b) What are goals? What are dreams? How does a goal differ from a dream?

CP-9456

Sub. Code

91023

B.Sc. DEGREE EXAMINATION, NOVEMBER 2018

Second Year

Fire and Industrial Safety Management

PRINCIPLES OF SAFETY MANAGEMENT

(Upto 2015 batch)

Time : 3 Hours

Maximum : 75 Marks

Part A

(5 × 3 = 15)

Answer **all** the questions.

1. What is JSA?
2. What is Safety Audit?
3. What is reportable and non-reportable accidents?
4. What is permanent total disabilities?
5. Write short notes on safety education and safety training.

Part B

(5 × 12 = 60)

Answer **all** the questions.

6. (a) Explain about JSA.

Or

- (b) Explain about safety survey and safety inspection.

7. (a) Explain about safety audit and its types.

Or

(b) Create check list for unsafe acts of workers & Unsafe conditions in the shop floor.

8. (a) Explain AIR.

Or

(b) Explain Role of supervisory and safety committee in accident investigation.

9. (a) Explain temporary total disability and permanent partial disability.

Or

(b) A Company has 102 employees that each work 22 hours per week. If the company experience 5 reportable accidents and 8 Non reportable accidents.10 lost work days. Calculate FR and SR.

10. (a) Explain domestic safety training.

Or

(b) Explain safety education and training identification and methods.

CP-9457

Sub. Code

91024

B.Sc. DEGREE EXAMINATION, NOVEMBER 2018

Second Year

Fire and industrial Safety Management

ENVIRONMENT, HEALTH AND SAFETY LAWS

(Upto 2015 batch)

Time : 3 Hours

Maximum : 75 Marks

Part A

(5 × 3 = 15)

Answer **all** the questions.

1. Write about the special provisions for employment of young persons.
2. Write about Tamilnadu Factories Rules 1950.
3. Mention the acts and rules about electricity.
4. Differentiate onsite and offsite plans.
5. What is the importance of occupational safety act of USA?

Part B

(5 × 12 = 60)

Answer **all** the questions.

6. (a) Describe about the provisions relating to hazardous process.

Or

- (b) What are the factors to be considered in the chapter (three) health in Indian Factory act?

7. (a) Write in detail about Noise pollution control rules.

Or

(b) Write about powers and functions of central and state boards.

8. (a) Explain about ISO 14001.

Or

(b) Write about preparation of offsite and onsite plans.

9. (a) Explain hazardous waste rules 1989.

Or

(b) Explain about BOCW act.

10. (a) Explain Health and safety at work Act.

Or

(b) Explain Explosive act 1983 and Pesticides acts.

CP-9458

Sub. Code

91025

B.Sc. DEGREE EXAMINATION, NOVEMBER 2018

Second Year

Fire and Industrial Safety Management

FOOD HYGIENE AND SAFETY (HACCP)

(upto 2015 batch)

Time : 3 Hours

Maximum : 75 Marks

Part A

(5 × 3 = 15)

Answer **all** questions.

1. Define food borne illness.
2. Write short notes on HACCP.
3. What are the types of hazards in food safety?
4. What are the procedures for safe cooking?
5. What do you mean by FMIA and PPIA?

Part B

(5 × 12 = 60)

Answer **all** questions.

6. (a) Explain about consumer control points in food safety.

Or

- (b) Explain about the principles of HACCP.

7. (a) What are the various methods of safe cooking?

Or

(b) Explain about Bacillus cereus poisoning.

8. (a) Explain about purchasing and preserving the food materials.

Or

(b) Define effective storage and preservation. How do you store raw materials and finished products?

9. (a) You have been promoted as food safety officer (ABC Company in Mumbai). You are to implement HACCP ACTS, sanitation, regulations and standards in industry. Give your ideas to them.

Or

(b) Explain about the adulteration in food and how will you detect adulteration in food articles.

10. (a) Explain personal hygiene management and sanitation.

Or

(b) Define water supply and give support procedures for storage and disposal of water.

CP-9459

Sub. Code

91031

B.Sc. DEGREE EXAMINATION, NOVEMBER 2018

Third Year

Fire and Industrial Safety Management

DISASTER MANAGEMENT AND APELL

(Upto 2015 batch)

Time : 3 Hours

Maximum : 75 Marks

Part A

(5 × 3 = 15)

Answer **all** questions.

1. Define Siren coding.
2. What is oil fire disaster?
3. Write short notes on Indian Ocean Tsunami.
4. What is ON-SITE ERP?
5. What is mock drills?

Part B

(5 × 12 = 60)

Answer **all** questions.

6. (a) Explain organizational structure for disaster management.

Or

- (b) Explain cyclones disaster and prevention measures.

7. (a) Explain Emergency response plan.

Or

(b) Briefly explain Disaster management cycle.

8. (a) Write about human behavior during Evacuation and Rescue procedure.

Or

(b) Explain about human error identification in emergency.

9. (a) How does APELL work?

Or

(b) Explain Role of APELL co-coordinating group.

10. (a) Explain about Bhopal Gas leak disaster.

Or

(b) Explain about Bhuj-Kutch earthquake.

CP-9460

Sub. Code

91032

B.Sc. DEGREE EXAMINATION, NOVEMBER 2018

Third Year

Fire and Industrial Safety Management

HAZARD AND RISK MANAGEMENT

(Upto 2015 batch)

Time : 3 Hours

Maximum : 75 Marks

Part A

(5 × 3 = 15)

Answer **all** questions.

1. Define Hazard and Risk.
2. What are the types of industrial hazards?
3. What are the benefits of JSA?
4. What is FMEA?
5. Define ETA and FTA.

Part B

(5 × 12 = 60)

Answer **all** questions.

6. (a) Explain about hierarchy of accident prevention.

Or

- (b) Explain the engineering and administrative control in HIRA.

7. (a) What is JSA? Explain steps of JSA in detail.

Or

(b) Why JSA is required and examine the benefits of JSA?

8. (a) Explain in detail about Event Tree Analysis.

Or

(b) Explain in detail on Hazard analysis.

9. (a) Define accident. What are the types of accident? Explain about types of accidents.

Or

(b) Explain about SHELL model and its usefulness.

10. (a) What is meant by accident investigation and reporting? What are the steps involved in AIR?

Or

(b) What are the accident indices? How will you calculate it?

CP-9461

Sub. Code

91033

B.Sc. DEGREE EXAMINATION, NOVEMBER 2018

Third Year

Fire and Industrial Safety Management

SAFETY INSPECTION AND AUDIT

(Upto 2015 batch)

Time : 3 Hours

Maximum : 75 Marks

Part A

(5 × 3 = 15)

Answer **all** questions.

1. Define safety inspection.
2. What are the types of audit?
3. Define OHSAS 18001.
4. Define ISO 14001.
5. Define Re-active monitoring with examples.

Part B

(5 × 12 = 60)

Answer **all** questions.

6. (a) Explain in detail about inspection procedures.

Or

- (b) What are the various steps involved in developing an "Inspection Report"?

7. (a) Explain in detail about the following.
- (i) What the components of safety audit?
 - (ii) What are the types of Non-conformity report?

Or

- (b) Describe the audit methodology in detail.
8. (a) Explain the procedures and principles of OHSAS 18001

Or

- (b) Explain the difference between OHSAS 18001 :2007 and ISO 14001:1996.
9. (a) Describe the steps in ISO 14001.

Or

- (b) Explain the levels of documentation for ISO 14000 based EMS.
10. (a) Explain in detail about training methodology consultation and communication.

Or

- (b) Explain in detail for the following with examples.
- (i) Pro-active monitoring
 - (ii) Re-active monitoring.

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Sub. Code

91034

B.Sc. DEGREE EXAMINATION, NOVEMBER 2018

Third Year

Fire and Industrial Safety Management

CONSTRUCTIONAL SAFETY

(Upto 2015 Batch)

Time : 3 Hours

Maximum : 75 Marks

Part A

(5 × 3 = 15)

Answer **all** the questions.

1. What are the human factors associated with accidents?
2. Define scaffolding.
3. Write a note on full body harness.
4. What are the types cranes?
5. What are the health hazards associated with demolition?

Part B

(5 × 12 = 60)

Answer **all** the questions.

6. (a) Discuss about the types and causes of accidents in construction sites.

Or

- (b) Discuss about
 - (i) Permit to work
 - (ii) Education and Training.

7. (a) Write short notes on :
- (i) Excavation
 - (ii) Blasting.

Or

- (b) Explain the following in detail.
- (i) Confined Space
 - (ii) Scaffolding.

8. (a) Explain in detail about safety measures while working with cranes.

Or

- (b) Explain in detail about safety measures during welding.

9. (a) Describe the safety precautions needed while operating hoisting cranes, mobile cranes and winches.

Or

- (b) List and discuss the points to be observed during inspection and testing of tower cranes.

10. (a) Discuss the safety measures while handling.
- (i) Conveyors
 - (ii) Chain Pulley Blocks
 - (iii) Winches
 - (iv) Builder's Hoist.

Or

- (b) Write in detail about the fire hazards and preventing methods.

CP-9463

Sub. Code

91035

B.Sc. DEGREE EXAMINATION, NOVEMBER 2018

Third Year

Fire and Industrial Safety Management

**INDUSTRIAL SAFETY MANAGEMENT AND OSHA
STANDARDS**

(Upto 2015 batch)

Time : 3 Hours

Maximum : 75 Marks

Part A

(5 × 3 = 15)

Answer **all** the questions.

1. List environmental and ecological consideration for selection of plant site.
2. Discuss briefly the term zero mechanical state.
3. What are the types of soldering?
4. Write short notes on heat treatment operations.
5. Mention the general principles of OSHA.

Part B

(5 × 12 = 60)

Answer **all** the questions.

6. (a) Explain the safe location of LPG and CNG.

Or

- (b) Explain the safe location of chemical storage, acetylene, ammonia.

7. (a) Explain the selection and suitability of Lathe drilling, Boring and milling.

Or

- (b) Explain guarding and explain the benefits of good guarding system.

8. (a) Distinguish between gas welding and Arc welding.

Or

- (b) What is brazing and explain safety precaution in brazing?

9. (a) Explain various safety measures in shot blasting and sand blasting.

Or

- (b) Explain about the safety in inspection and testing.

10. (a) Explain OH & S management system element, specification and scope.

Or

- (b) Explain guideline for developing and implementing OH & S policy.
