

CP-6436

Sub. Code

11

B.Sc. DEGREE EXAMINATION, NOVEMBER 2015

Fire and Industrial Safety Management

COMMUNICATIVE ENGLISH

Time : 3 Hours

Maximum : 75 Marks

Section A

(5 × 3 = 15)

Answer **all** questions.

1. Define 'enquiry letter'. Cite some examples of enquiry letters.
2. Write a short note on check list.
3. Write a paragraph on formats of communication with reference to OJT.
4. What are the mechanics of Presentation?
5. Define the 'follow up' in interview.

Section B

(5 × 12 = 60)

Answer **all** questions.

6. (a) Draft a form letter for recruiting employees in your company.

Or

- (b) Recently you bought a laptop. It developed some problems. Mention the problem and work a letter to the laptop company to rectify the problem by sending a technician.

7. (a) While making appointments, written examinations, group discussion and interviews are conducted. Explain in detail the importance of all the three.

Or

- (b) Write an essay on confidential paper.
8. (a) Write an essay on functional communication.

Or

- (b) Define the objectives and barriers of interpersonal communication.
9. (a) How do you prepare a presentation?

Or

- (b) How does active listening help you for a good presentation?
10. (a) Write an essay on the tips for attending a interview.

Or

- (b) Present at least three resume formats.
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CP-6437

Sub. Code

12

B.Sc. DEGREE EXAMINATION, NOVEMBER 2015**Fire and Industrial Safety Management****FIRE PREVENTION AND CONTROL**

Time : 3 Hours

Maximum : 75 Marks

Section A

(5 × 3 = 15)

Answer **all** questions.

1. Explain Auto ignition.
2. Explain first aid for burns.
3. Explain Fire fighting systems.
4. Explain the steps involved in fire testing.
5. What is explosion venting.

Section B

(5 × 12 = 60)

Answer **all** questions.

6. (a) Explain
 - (i) Types of fires
 - (ii) Unconfirmed vapour cloud explosion

Or

- (b) Discuss toxicity of products of combustion.

7. (a) Explain

- (i) Hoses and its types
- (ii) Fire rescue operations

Or

(b) Write notes on

- (i) Foam generators
- (ii) Fire station

8. (a) Explain the reliability, evaluation and standards of alarm and detection system.

Or

(b) Discuss on flammable liquids and tank farms.

9. (a) Explain fire safety requirements for high rise building.

Or

- (b) (i) Discuss the necessity of fire certificates
- (ii) Write notes on structural integrity.

10. (a) Discuss on the static and mobile pressure vessel (SMPV) rules.

Or

(b) Enumerate the salient features of gas cylinder rules.

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13

B.Sc. DEGREE EXAMINATION, NOVEMBER 2015

Fire and Industrial Safety Management

ERGONOMICS

Time : 3 Hours

Maximum : 75 Marks

Section A

(5 × 3 = 15)

Answer **all** questions.

1. What is meant by misleading expression?
2. Define work place temperature and how will you measure it.
3. Explain slings and slins practices.
4. Define Rest time.
5. Write a note on material handling.

Section B

(5 × 12 = 60)

Answer **all** questions.

6. (a) Explain the following (i) sitting position
(ii) standing position (iii) visual condition.

Or

- (b) Write a note on manual lifting methods of capacity as per factory act.

7. (a) Write a note on construction workers labour colony management.

Or

- (b) Define Noise; what are effects of Noise; how will you measure it.

8. (a) Explain the general facilities to be provided for the workers.

Or

- (b) Perfect organisation is the key to company success explain.

9. (a) Explain briefly the working organisation structure of any company to work effectively.

Or

- (b) How the working time of the people make them to work effectively for the growth of the organisation.

10. (a) Distinguish daily reporting and working period.

Or

- (b) Write a note on physical factors in ergonomics.
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CP-6439

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14

B.Sc. DEGREE EXAMINATION, NOVEMBER 2015

Fire and Industrial Safety Management

ELECTRICAL SAFETY

Time : 3 Hours

Maximum : 75 Marks

Section A

(5 × 3 = 15)

Answer **all** questions.

1. Define electromagnetic interference.
2. Define ELCB.
3. Classify primary and secondary hazards.
4. What is the use of tool cabling?
5. What are the various equipment certifying agencies?

Section B

(5 × 12 = 60)

Answer **all** questions.

6. (a) (i) Explain the international standards on electrical safety. (10)
- (ii) Define energy radiation. (2)

Or

- (b) (i) Explain working principle of electrical equipment. (10)
- (ii) Define energy radiation. (2)

7. (a) Explain in detail about the energy leakage clearance and classes of insulation. (12)

Or

- (b) Write short notes on
- (i) Lightning hazards. (6)
 - (ii) Lightning arrester installation. (6)
8. (a) Explain about FRLS insulation – insulation and continuity test system grounding. (12)

Or

- (b) Explain about personal protective measure and safety in handling hand held electrical appliances. (12)
9. (a) Write short notes on cabling and cable joints. (12)
- Or
- (b) Discuss about the role of environment in selection – safety aspect in applications. (12)
10. (a) Explain in detail about hazardous zones.

Or

- (b) Write a short note on use of barrier and isolator.
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CP-6440

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15

B.Sc. DEGREE EXAMINATION, NOVEMBER 2015

Fire and Industrial Safety Management

ENVIRONMENTAL STUDIES

Time : 3 Hours

Maximum : 75 Marks

Section A

(5 × 3 = 15)

Answer **all** the questions.

1. Define deforestation.
2. What is ozone layer depletion?
3. Define recycling and reuse.
4. Explain PH meter.
5. Explain thermal power plants.

Section B

(5 × 12 = 60)

Answer **all** the questions.

6. (a) Explain CFC and how it is affected in ozone layer.

Or

- (b) (i) Explain infra red radiation.
- (ii) Explain the concept of clean coal combustion technology.

7. (a) Explain about effluent quality standards and laws.

Or

- (b) Explain the different industrial effluents and their treatment.
8. (a) Discuss in detail, the selection chart for the treatment of different hazardous waste.

Or

- (b) Write short notes on
- (i) Incineration
 - (ii) Vitrification.
9. (a) Explain (i) Gas chromatograph. (ii) Lux meter.

Or

- (b) Write short notes on :
- (i) Cyclone separators
 - (ii) Electrostatic precipitator.
10. (a) Discuss about dying and pigment industries.

Or

- (b) How pollution will be controlled in petroleum and textile industry?
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CP-6441

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21

B.Sc. DEGREE EXAMINATION, NOVEMBER 2015

Fire and Industrial Safety Management

SAFETY ACCOUNTING

Time : 3 Hours

Maximum : 75 Marks

Section A

(5 × 3 = 15)

Answer **all** questions.

1. Define Two Dimensional Random variable.
2. Write about significance of the study of correlation.
3. Explain one-way & two-way classification.
4. What are the advantages of completely randomized design?
5. What are the components of time series analysis?

Section B

(5 × 12 = 60)

Answer **all** questions.

6. (a) Calculate the Karl Pearson of correlation from the following data and interpret the value marks in statistics and accountancy.

X (stat) 48 35 17 23 47

Y (stat) 45 20 40 25 45

Or

- (b) Analysis the frequency distribution by the method of moments the details are

X 2 3 4 5 6

Y 1 3 7 3 1

7. (a) From the given data calculate the regression equation X on Y.

X 7 3 15 12 13

Y 10 15 20 11 9

Or

- (b) Using following data find the regression taking derivation. Find X on Y & Y on X.

X 10 5 15 7 13

Y 5 10 4 5 6

8. (a) (i) What is Sampling distribution?
(ii) Discuss the T-distribution and Chi-Square Distribution.

Or

- (b) To assess the sigma of possible variation in performance in a certain test between the convert schools of the city a common test was give to a number of student taken at the random from the 5th class of each of four school concern the result of given below marks of analysis of data given below.

A B C D

8 12 18 13

10 11 12 9

12 9 16 12

8 14 6 16

7 4 8 15

9. (a) Define the Latin square design.

Or

- (b) (i) What is completely Randomized design.
(ii) What are the advantages and disadvantages of completely randomized design?
10. (a) Assume a 4 year cycle and calculate the trend by method of moving average from the following data relating to the production of tea in India.

Year: 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009

Production: 464 515 518 467 502 540 557 571 586 612

Or

- (b) What is moving average? What are its uses in time series?
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CP-6442

Sub. Code

22

B.Sc. DEGREE EXAMINATION, NOVEMBER 2015**Fire and Industrial Safety Management****PERSONALITY DEVELOPMENT**

Time : 3 Hours

Maximum : 75 Marks

Section A

(5 × 3 = 15)

Answer **all** questions.

1. What do you understand by personality?
2. List down the factors leading to Demotivation.
3. What is Self-Esteem?
4. Differentiate dream from Goal.
5. What is Assertiveness?

Section B

(5 × 12 = 60)

Answer **all** questions.

6. (a) Explain the Hurdles in achieving success and the strategies to overcome.

Or

- (b) Discuss the various stages of personality development.
7. (a) Briefly explain the process of motivation.

Or

- (b) What is attitude? How is it affects an individual's personality?

8. (a) Highlight the advantages of Self-Esteem.

Or

- (b) Bring out the relationship between personality and Self Esteem.

9. (a) Explain the significance of Goal setting.

Or

- (b) Find out the reasons for failure of Goal setting? Explain.

10. (a) Explain the strategies adopted to reduce stress.

Or

- (b) Write short notes on (i) lateral thinking (ii) team work.
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CP-6443

Sub. Code

23

B.Sc. DEGREE EXAMINATION, NOVEMBER 2015**Fire and Industrial Safety Management****PRINCIPLES OF SAFETY MANAGEMENT**

Time : 3 Hours

Maximum : 75 Marks

Section A

(5 × 3 = 15)

Answer **all** questions.

1. Write short notes on safety survey.
2. What is the different types of Audit?
3. Explain the various cost involved in an accident.
4. Mention about the frequency and severity rates.
5. Distinguish between role of Government agencies and private agencies.

Section B

(5 × 12 = 60)

Answer **all** questions.

6. (a) Describe about disaster control and safety inspection.

Or

- (b) Describe in detail the various safety management system.

7. (a) Describe the identification of unsafe acts workers and unsafe conditions in the ship floor.

Or

- (b) Brief about the perusal of accident and safety records.
8. (a) Explain the principles of accident prevention in detail.

Or

- (b) Write short notes on role of supervisor and role of safety committee.
9. (a) (i) Discuss in detail the merits and demerits of safety performance indicators.
- (ii) What is the significance of FSI and safe 'T' score?

Or

- (b) Write with details of the temporary total disabilities.
10. (a) Discuss about the programs seminars and conferences.

Or

- (b) Explain domestic safety and training.

CP-6444

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B.Sc. DEGREE EXAMINATION, NOVEMBER 2015

Fire and Industrial Safety Management

ENVIRONMENT, HEALTH AND SAFETY LAWS

Time : 3 Hours

Maximum : 75 Marks

Section A

(5 × 3 = 15)

Answer **all** questions.

1. Write notes on Weekly hours and Daily hours.
2. List out the equipments in first aid box as per TNFSR 1950.
3. Write a note on Motor vehicle rules.
4. What is meant by onsite and offsite ERP?
5. Write about Safety data sheets.

Section B

(5 × 12 = 60)

Answer **all** questions.

6. (a) What are the Prevention and Control methods of air pollution and Water pollution as per act?

Or

- (b) Employment of young person — What are the various factors to be considered as per the Factories Act?

7. (a) Write about Noise pollution regulation and Control rules.

Or

- (b) Explain the General Powers of the Central government?

8. (a) How to notify the major accidents? And Write the model of report of major accidents.

Or

- (b) What is MSDS? And explain the requirements of safety sheets?

9. (a) Give an example of the environment's policy of ISO — 14001.

Or

- (b) Mention some of the environment's performance indicators for ISO 14001.

10. (a) (i) What are the general responsibilities of the occupier in the industry?
(ii) What is major accident? And How to notify it?
(iii) Write a note on the import of hazardous chemicals?

Or

- (b) Explain the general provisions of petroleum act.

CP-6445

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B.Sc. DEGREE EXAMINATION, NOVEMBER 2015

Fire and Industrial Safety Management

FOOD HYGIENE AND SAFETY (HACCP)

Time : 3 Hours

Maximum : 75 Marks

Section A

(5 × 3 = 15)

Answer **all** questions.

1. Define — HACCP.
2. What are the types of pest control?
3. What are the types of hazards in food safety?
4. How to store the meat and fish item?
5. What is ventilation?

Section B

(5 × 12 = 60)

Answer **all** questions.

6. (a) What are the principles of HACCP?

Or

- (b) Explain about consumer control points in food safety.

7. (a) (i) Describe about the calorie values of various food
(ii) Write about prevention of food contamination

Or

- (b) What are the principles of HACCP.
8. (a) Discuss about the safety tips for storing the meat, fish, and dairy products.

Or

- (b) (i) Explain about effective storage of food
(ii) Give some tips for storing canned foods
9. (a) You have been promoted as a food safety officer for xyz group of hotels and resort the company is planning to come out with hotels of small, medium and large scale. As a food safety officer you are assigned to draw staff brigade, staff hierarchy, for various types of hotel the company then give the duties and responsibilities of a food safety team. Which is going to start operation in India very soon? Explain it.

Or

- (b) Briefly explain what are the adulteration in food and how will you detect adulteration in food articles.
10. (a) Define water supply and explain about the storage and disposal of water.

Or

- (b) Explain – Personal Hygiene and Sanitation.

CP-6446

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B.Sc. DEGREE EXAMINATION, NOVEMBER 2015

Fire and Industrial Safety Management

**DISASTER MANAGEMENT AND APELL - AWARENESS
AND PREPAREDNESS DURING EMERGENCIES
AT LOCAL LEVEL**

Time : 3 Hours

Maximum : 75 Marks

SECTION A

(5 × 3 = 15)

Answer ALL questions.

1. Define the cyclones.
2. What is mitigation?
3. Mention the siren coding systems..
4. State the goals of APELL.
5. Write short notes on Bhopal gas leak disaster.

Section B

(5 × 12 = 60)

Answer ALL questions.

6. (a) What are the components of disaster management?

Or

- (b) Describe forest fire and oil fire.

7. (a) Write about disaster mitigation & infrastructure.

Or

- (b) Brief hazard identification and vulnerability analysis.

8. (a) What is the use of information collection of EER.

Or

- (b) Describe about Rescue procedure.

9. (a) How does APELL work?

Or

- (b) What are the responsibilities of APELL partner?

10. (a) Explain Indian T-sunami of 26 December 2004.

Or

- (b) Discuss about Bhuj – Kutch earthquake affected.
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CP-6447

Sub. Code

33

B.Sc. DEGREE EXAMINATION, NOVEMBER 2015**Fine and Industrial Safety Management****SAFETY INSPECTION AND AUDIT**

Time : 3 Hours

Maximum : 75 Marks

Section A

(5 × 3 = 15)

Answer **all** questions.

1. How to prepare a report in safety inspection?
2. What are the components of safety audit?
3. Write the benefits of ISO 14001:1996 guidelines.
4. Name the levels of documentation for ISO 14001 guidelines.
5. Differentiate proactive and reactive monitoring.

Section B

(5 × 12 = 60)

Answer **all** questions.

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

Or

- (b) Explain the procedures of safety inspection.

7. (a) What are procedures to identify the unsafe condition of workers?

Or

- (b) Explain safety audit in details.

8. (a) Explain the benefits and features of OSHA 18001 guidelines.

Or

- (b) Explain the content and development of OH and S policy.

9. (a) What are the principles and guidelines of ISO 14001?

Or

- (b) Explain in detail about auditing ISO 14000.

10. (a) What are the procedures involved in accident report making?

Or

- (b) Explain in details about necessity of training.

CP-6448

Sub. Code

34

B.Sc. DEGREE EXAMINATION, NOVEMBER 2015

Fire and Industrial Safety Management

CONSTRUCTIONAL SAFETY

Time : 3 Hours

Maximum : 75 Marks

Section A

(5 × 3 = 15)

Answer **all** questions.

1. What is the importance of safety in construction industry?
2. What are the duties of a confined space attendant?
3. What is a tag system?
4. In which conditions a scaffold cannot be erected?
5. List out the safety requirement for working at height.

Section B

(5 × 12 = 60)

Answer **all** questions.

6. (a) Explain about constructional safety regulations?

Or

- (b) Write short notes on :
 - (i) permits to work
 - (ii) quality assurance in construction.

7. (a) Write any twelve points of safety precaution of scaffold.

Or

- (b) Explain about erection of structural framework and its safety measures.
8. (a) Discuss in details of OSHA requirement for working at heights.

Or

- (b) Plumber dies when trench collapses : (Case study)

A 35 year old male plumber died when the trench he was working in caved around him. The worker was in the trench connecting a residential sewer line to a sewer main when the accident occurred. The trench was seven feet deep and was not shored, benched or sloped. The area are trench was located had been dug up before other utilities. The soil that was removed from trench was placed next to the edge of the trench. The company had shoring, but it was not available at this job site. The worker had been hired two days before the incident occurred and had not yet been to the company's orientation and safety training.

- (i) What went wrong in this situation?
- (ii) How could this incident have been prevented?
9. (a) What is crane? Explain about types of crane.

Or

- (b) Write short notes on :
- (i) safety measures for concrete vibrators.
- (ii) safety measures for loader dumpers.

10. (a) (i) List out the 20 hazards in construction industry and write short note.
(ii) Write short note on pre survey inspection.

Or

- (b) List out and discuss safety precautions during manual and mechanical demolition work.
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