



# higher education & training

Department:  
Higher Education and Training  
**REPUBLIC OF SOUTH AFRICA**

## **NON-NATIONAL CERTIFICATE OCCUPATIONAL HEALTH AND SAFETY ACT**

**15 November 2021 (X-paper)  
09:00–12:00**

**This question paper consists of 11 pages.**



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**DEPARTMENT OF HIGHER EDUCATION AND TRAINING  
REPUBLIC OF SOUTH AFRICA**

**NON-NATIONAL CERTIFICATE  
OCCUPATION HEALTH AND SAFETY ACT  
TIME: 3 HOURS  
MARKS: 100**

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**INSTRUCTIONS AND INFORMATION**

1. Answer all the questions.
  2. Read all the questions carefully.
  3. Number the answers according to the numbering system used in this question paper.
  4. Write neatly and legibly.
- 



**QUESTION 1**

1.1 Define the following terms, as presented in the Occupational Health and Safety Act:

1.1.1 Major incident

1.1.2 Listed work

1.1.3 Organism

1.1.4 Regulation

(4 × 1) (4)

1.2 The chief inspector has, in writing, directed you as an employer to prepare a written policy concerning the protection of your employees' health and safety at work. This document also includes a description of your organisation and the arrangements for carrying out and reviewing the policy. The chief inspector also published guidelines concerning the contents of the policy.

What are the guidelines published by the chief inspector?

(1)

1.3 The Minister has, by notice in the Gazette, declared certain activities at your workplace, under the conditions or circumstances specified in the notice, to be 'listed work'. Subject to the arrangements prescribed, after consultation with the health and safety committee established for your workplace, you should take three specific steps.

Name TWO of these steps.

(2)

1.4 You manufacture refrigeration equipment and employ 140 people at your factory. You also employ 30 persons who do installation, maintenance, and repairs on users' premises (i.e., where the refrigeration equipment is installed). There are 29 people employed in your offices, along with 28 administrative employees who are responsible for sales, advertising, and consulting services in the field.

1.4.1 How will you determine how many health and safety representatives you should designate?

1.4.2 How many health and safety representatives should designate for the factory?

1.4.3 How many health and safety representatives should you designate for the offices?

(3 × 1) (3)

[10]



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**QUESTION 2**

- 2.1 "An employer shall, in respect of each workplace where two or more health and safety representatives have been designated, establish one or more health and safety committees and, at every meeting of such a committee as contemplated in Subsection (4), consult with the committee with a view to initiating, developing, promoting, maintaining and reviewing measures to ensure the health and safety of his or her employees at work."

You have 345 employees at your factory.

- 2.1.1 If one health and safety committee has been established in respect of the entire workplace, how many health and safety representatives should be members of the committee?

- 2.1.2 If two or more health and safety committees have been established in respect of the workplace, how many health and safety representative should be members per each of those committees?

- 2.1.3 How many people may an employer nominate to be on any health and safety committee?

(3 × 1) (3)

- 2.2 A health and safety committee may co-opt one or more persons as advisory members of the committee.

- 2.2.1 For what reason may a person be co-opted?

- 2.2.2 What is the legal position of an advisory member on the committee?

(2 × 1) (2)

- 2.3 In respect to what are you not allowed to make any deduction from any employee's remuneration, or require or permit any employee to make any payment to you or any other person?

(1)

- 2.4 "Each incident occurring at work or arising out of or in connection with the activities of a person at work, or in connection with the use of plant or machinery, in which, or in consequence of which, any person dies, becomes unconscious, suffers the loss of a limb or part of a limb or is otherwise injured or becomes ill to such a degree that he or she is likely either to die or to suffer a permanent physical defect or be unable for a period of at least 14 days either to work or to continue with the activity for which he or she was employed or is usually employed, shall, within the prescribed period and in the prescribed manner, be reported to an inspector by the employer or the user of the plant or machinery concerned, as the case may be."

Name TWO types of incidents where while no person was injured, the health or safety of a person was endangered, and which must, therefore, still be reported to an inspector.

(2)



- 2.5 "Whenever an inspector believes an employer or user has failed to comply with a provision of a regulation applicable to him or her, the inspector may, in writing, direct that employer or user to take, within a period specified in the directions, such steps which in the inspector's opinion are necessary to comply with the said provision."

Name TWO manners in which a notice under this Act may be served.

(2)  
[10]

### QUESTION 3

- 3.1 Define the following terms, as presented in the Construction Regulations of 2014:

3.1.1 Design

3.1.2 Explosive actuated fastening device

(2 × 1) (2)

- 3.2 "A client who intends to carry out construction work of a certain magnitude must, at least 30 days before that work is to be carried out, apply to the provincial director, in writing, for a construction work permit to perform said work."

Name TWO conditions under which such a construction work permit must be obtained before the intended construction work may be performed.

(2)

- 3.3 A principal contractor must consider the size of and degree of danger likely to be encountered within a project and then, in writing, appoint one or more assistant construction managers for different sections.

3.3.1 Would the appointment of such managers relieve the construction manager of any personal accountability for failing in his or her management duties?

3.3.2 What other appointment must the contractor make after consultation with the client?

(2 × 1) (2)

- 3.4 Name the TWO things with which a contractor must comply before he or she may allow the use of rope access work.

(2)

- 3.5 No contractor is permitted to use an explosive actuated fastening device unless it is properly guarded and correctly used by a trained operator.

Name TWO requirements about the use of an explosive actuated fastening device.

(2)  
[10]



**QUESTION 4**

- 4.1 Define the following terms, as presented in the Electrical Installation Regulations of 2011:
- 4.1.1 Electrical installation (2)
  - 4.1.2 General control (1)
  - 4.1.3 Installation work (1)
- 4.2 Who is responsible for the safety, safe use, and maintenance of the electrical installation that he or she uses or leases? (1)
- 4.3 In the case where the point of supply is not the point of control, who is responsible for the safety of the conductors on the premises connecting the electrical installation to the point of supply? (1)
- 4.4 To which requirement must the items of an electrical installation that are not covered by an incorporated health and safety standard, as well as the conductors between the point of supply and the point of control, be installed? (1)
- 4.5 Who must exercise general control over all electrical installation work being carried out? (1)
- 4.6 What must you do before commencing installation work that requires a new supply or an increase in electricity supply capacity? (1)
- 4.7 When may you connect a completed or partially completed electrical installation to the electricity supply? (1)
- [10]**

**QUESTION 5**

- 5.1 Define the following terms, as presented in the Ergonomics Regulations of 2019:
- 5.1.1 Ergonomic risk
  - 5.1.2 Ergonomic risk assessment (2 × 1) (2)
- 5.2 Where there is a potential ergonomic risk, an employer must, after consultation with health and safety committees or representatives, establish a training programme that incorporates the contents of the Ergonomic Regulations, precautions taken by employees to protect themselves, and the necessity for medical surveillance.
- Name TWO other aspects that such a training programme must incorporate. (2)



- 5.3 What must an employer do to prevent, or at least control, that a person is not exposed to ergonomic risk? (2)
- 5.4 Every employer must, as far as is reasonably practicable, ensure that any ergonomic control provided for the benefit of employees complies with the Ergonomic Regulations.  
Explain this statement. (2)
- 5.5 An employer must keep various records in connection with ergonomics.
- 5.5.1 For what period must records related to ergonomic risk assessments be kept?
- 5.5.2 For what period must records related to information, instruction, and training be kept? (2 × 1) (2)
- [10]

**QUESTION 6**

- 6.1 Define the following terms, as presented in the amended Environmental Regulations for Workplaces of 1987: (3)
- 6.1.1 Directional luminaire
- 6.1.2 Acclimatised
- 6.1.3 Heat stroke (3 × 1) (3)
- 6.2 You may not require or permit an employee to work in a refrigerated environment in which the actual dry-bulb temperature is below 0°C unless the maximum exposure of that employee does not exceed the stipulated periods tabled in the Regulations.
- 6.2.1 What must an employee's maximum period of exposure be in an environment between 0 and -18 °C?
- 6.2.2 What must an employee's maximum period of exposure be in an environment between -34 and -57 °C? (2 × 1) (2)



6.3 With a view to the emergency evacuation of indoor workplaces without natural lighting, or in which people habitually work at night, every employer must, in such workplaces, provide emergency sources of lighting.

6.3.1 What must the illuminance be for this kind of emergency lighting?

6.3.2 What must the illuminance be of the emergency lighting where it is necessary to stop machinery or shut down plant or processes before evacuating the workplace?

(2 × 1) (2)

6.4 "An employer shall ensure that every workplace in his or her undertaking is ventilated, either by natural or mechanical means, in such a way that the time-weighted average concentration of carbon dioxide therein, taken over an eight-hour period, does not exceed one half per cent by volume of air."

Name ONE other requirement with which the air breathed by employees must comply.

(1)

6.5 To expedite the evacuation of a workplace in case of fire, every employer must ensure that suitable emergency escape routes are provided.

In the case of staircases, name TWO requirements with which staircases must comply.

(2)  
[10]

## QUESTION 7

7.1 Define the following terms, as presented in the ammended Facilities Regulations of 2004:

7.1.1 Adjoining

7.1.2 Sanitary facilities

(2 × 1) (2)

7.2 Every employer must provide sanitary facilities at their workplace, in accordance with the provisions of Parts F, P, and Q of the National Building Regulations.

7.2.1 When may an employer make arrangements for his or her employees to use closets and washbasins on another premise?

7.2.2 Under what conditions may the arrangements in 7.2.1 be made?

(2 × 2) (4)



- 7.3 Every employer must, in line with Table 4 of Part P of the SABS 0400, provide shower facilities for employees' use.

Name TWO aspects with which these showers must comply.

(2)

- 7.4 Name TWO cases of when you should provide separate changing rooms for males and females.

(2)  
[10]

### QUESTION 8

- 8.1 Define the following terms, as presented in the General Machinery Regulations of 1988:

8.1.1 Certificated engineer

8.1.2 Graduate engineer

8.1.3 Shiftsman

(3 × 1) (3)

- 8.2 A person has obtained a diploma in electro-technical engineering and has 10 years' experience in the operation and maintenance of LV and HV machinery and equipment.

8.2.1 What is the maximum kW rating of a factory where this person may be appointed as the competent GMR2 employee?

8.2.2 What is the maximum kVA rating of a municipality where this person may be appointed as the competent GMR2 employee for the electrical distribution system?

(2 × 1) (2)

- 8.3 An employer must ensure that every person authorised to operate machinery is 1) fully aware of the dangers attached thereto and is 2) conversant with the precautionary measures to be taken or observed to prevent such dangers.

8.3.1 What type of supervision do employers need to implement in respect to machinery that requires constant attention, to avoid accidents and ensure that someone is always present on the premises while the machinery is in operation?

8.3.2 When may a person who operates machinery that requires constant attention to avoid accidents leave his or her post while the machinery is in operation?

(2 × 1) (2)

- 8.4 When may you permit or require a person to do any work on or near electrically alive machinery if such work may endanger him or her?

(1)


- 8.5 Name TWO provisions necessary for machinery that is simultaneously operated by two or more people.

(2)  
[10]



**QUESTION 9**

9.1 Define the following terms, as presented in the Driven Machinery Regulations of 2015:

9.1.1 Lifting machine 

9.1.2 Lifting machinery entity

9.1.3 Lifting machinery inspector

(3 × 1) (3)

9.2 Unless moving or revolving components of machinery are in such a position or of such construction that they are as safe as they would be if they were securely fenced or guarded, a user must first cause such components to be securely fenced or guarded.

9.2.1 How will you protect set screws, keys, or bolts on revolving shafts?

9.2.2 How will you protect a square projecting shaft or spindle end that projects for more than a quarter of its diameter?

(2 × 1) (2)

9.3 You may not use or permit the use of a lifting machine unless it has been designed and constructed in accordance with a generally accepted technical standard.

Name TWO other compulsory safety requirements. 

(2)

9.4 Users must ensure that the whole installation and all the working parts of a lifting machine are thoroughly examined and subjected to a performance test, as prescribed by the standard to which the lifting machine was manufactured, before it is put into use as well as every time it is dismantled and re-erected.

9.4.1 What tests must you carry out in the absence of such a prescribed performance test?

9.4.2 Who must carry out this examination and performance test?


9.4.3 What knowledge must this person have?

(3 × 1) (3)

[10]

**QUESTION 10**

10.1 Every employer must have a copy of the Act and all relevant regulations readily available within the workplace, except under certain conditions.

10.1.1 When is it not required to have a copy of the Act and/or relevant regulations readily available within the workplace? 

10.1.2 What are the duties of the employer regarding the requirements of a copy of the Act and/or relevant regulations in the case where it is not required to have such copies readily available within the workplace?

(2 × 1) (2)



10.2 "Each incident occurring at work or arising out of or in connection with the activities of persons at work, or in connection with the use of plant or machinery, in which, or in consequence of which any person dies, becomes unconscious, suffers the loss of a limb or part of a limb or is otherwise injured or becomes ill to such a degree that he or she is likely either to die or to suffer a permanent physical defect or likely to be unable for a period of at least 14 days either to work or to continue with the activity for which he or she was employed or is usually employed shall, within the prescribed period and in the prescribed manner, be reported to an inspector by the employer or the user of the plant or machinery concerned, as the case may be."

10.2.1 When must such an incident be reported? ☐

10.2.2 In what format must such an incident be reported?

10.2.3 Whenever a person not in your employment is injured in an incident in your premises, who must you notify?

(3 × 1)

(3)

10.3 An employer must keep a record of all incidents at their workplace and ensure that they are fully investigated.

10.3.1 Apart from the incidents referred to in QUESTION 10.2, of what other incidents must an employer also keep record?

10.3.2 Who must investigate these incidents named in QUESTION 10.3.1?

10.3.3 When must such incidents be investigated?

(3 × 1)

(3)

10.4 When an inspector is directed to hold a formal enquiry into an incident in terms of Section 32(1) of the Act he or she must notify the employer or user concerned of the date, time, and place of this enquiry.

10.4.1 What must the employer do after an inspector has informed him or her of the formal enquiry?

10.4.2 What must the employer do when those required to attend the enquiry are likely not to attend?

(2 × 1)

(2)

**TOTAL:**

**[10]  
100**

