**Mason General-Level-4** 

**QUESTION PAPER CODE: - CON/Q0103** 

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Name of Job Role with	Mason General Level 4	QP Code(Level)	CON/Q0103 (L-4)
Level			
Type of Question		Batch Name/	
		Batch Id	
Duration	7 hours	Max Marks:	800
Name of Candidate		Aadhaar Number	
Candidates Father Name		Candidate	
		Signature	
Assessor Name and		Trainer Name and	
Signature		Signature	
TP Name		TC Name	

#### **INSTRUCTIONS TO THE CANDIDATES**

- 1. No candidate will leave the examination Hall/Centre before the 17:30. If any candidate leaves centre before 17:30 will be counted absent.
- **2.** Write your name, Adhaar Number, father name, Signature clearly in the designated space.
- **3.** The enclosed paper contains 3 sections Theory, Practical & Viva. Marks are mentioned against each question.
- **4.** Use of Calculators/ Mobile Phone is not permitted during assessment.
- 5. Use only Black or Blue ball point pen. Don't do any rough work in paper.
- **6.** Do not mark multiple answers for one question, in case of multiple marking, you will not be given any marks for that particular question.
- **7.** The Passing percentage for each QP will be 70%. To pass the qualification pack, every trainee should score a minimum of 70% individually in each NOS,

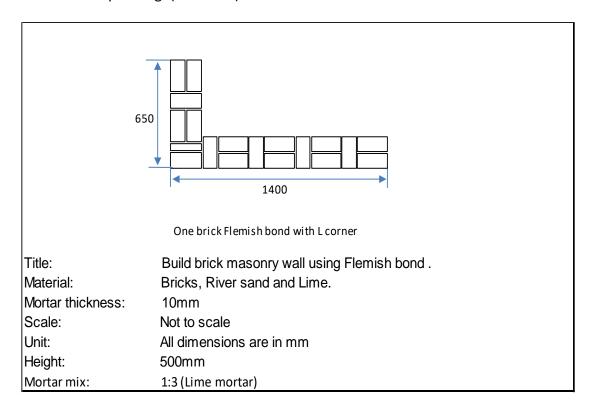
Practical Questions: Duration: 5.5 hrs

**Total Marks: 640 marks** 

#### CON/N0110: Construct masonry structures using brick /block (60 minutes)

#### Infrastructure and tools required:

- 1.) Infra Store room, Class room for 30 candidates, Practical yard (30 meter x 30 meter),
- 2.) Tools & materials Measuring tape, trowel, hammer, jointer, spirit level, plumb bob, straight edge, line thread, mortar pan, brush, chisel, tube level, brick, cement/lime, fine aggregate, water etc
  - 1. Carry out preparatory work including selection and visual check of the tools and material being used (10 Marks)
  - 2. Read and interpret details from the given sketch of brickwork. (10 Marks)
  - Construct brick masonry wall as per drawing (55 Marks).
     Note: All tasks should be considered accepted only on completion of task within acceptable tolerance limit. Also keep in view that completion of given task within permissible tolerance limit will be awarded full marks otherwise zero
  - 4. Perform flush pointing. (55 Marks)



#### CON/N0111: Execute plaster on internal & external Masonry & RCC structure (30 minutes)

#### Infrastructure and tools required:

- 1.) Infra Store room, Class room for 30 candidates, Practical yard (30 meter x 30 meter),
- 2.) Tools & materials Measuring tape, trowel, hacking hammer, spirit level, plumb bob, straight edge, line thread, mortar pan, brush, chisel, tube level, float, Lime, fine aggregate, water etc

Provide 12 mm thick lime plastering of ratio 1:6 on external wall with sand faced finish including racking the joint, wetting of surfaces and curing the work.

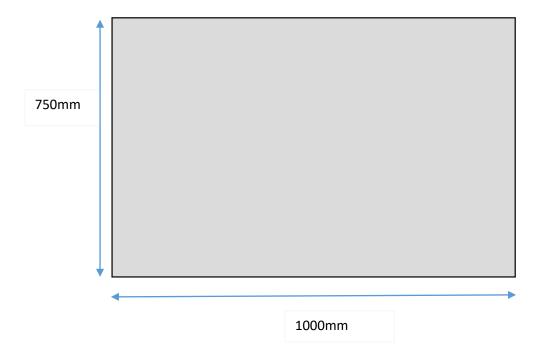
 Carry out preparatory works including selection and visual check of the tools and material being used (10 Marks)

2. Read and interpret sketch for work (10 Marks)

3. Carry out surface preparation for plastering (10 Marks)

4. Fix button marks for plastering (20 Marks)

5. Finish plastering as per given tolerance limit (30 Marks)



6. Carryout plastering with water proof compound

### CON/N0112: Carry out waterproofing work for structures using cementitious materials Duration: 75 minutes

#### Infrastructure and tools required:

- 1.) Infra Store room, Class room for 30 candidates, Practical yard (30 meter x 30 meter),
- 2.) Tools & materials Measuring tape, trowel, hacking hammer, spirit level, plumb bob, straight edge, line thread, mortar pan, brush, chisel, tube level, float, brick bat, water proofing compound (including primer, thinner), cement, fine aggregate, water

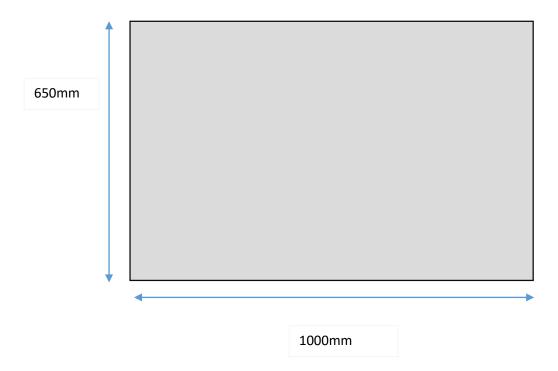
Provide 12 mm thick plaster for waterproofing work of ratio 1:4 as per given sketch with proper steps with a slope of 1:75.

1.	Carry out preparatory works including selection and visual check of the tools and		
	material being used	(5 Marks)	
2.	Read and interpret sketch for work	(5 Marks)	
3.	Carry out surface preparation for plastering	(5 Marks)	
4.	Prepare/mix waterproof solution with required proportion	(5 Marks)	
5.	Carryout water proofing course on existing concrete surface using cement slurry and water		
	proofing compound.	(20 Marks)	

7. Carry out brick bat course over cement finished surface (20 Marks)

(15 Marks)

8. Carryout surface finishing with lime mortar. (5 Marks)



#### CON/N0113: Build structures using random rubble masonry

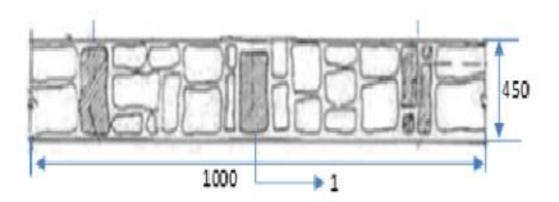
**Duration: 60 minutes** 

#### Infrastructure and tools required:

- 1.) Infra Store room, Class room for 30 candidates, Practical yard (30 meter x 30 meter),
- 2.) Tools & materials Measuring tape, trowel, dressing hammer, spall hammer, chisel, spirit level, plumb bob, straight edge, line thread, mortar pan, brush, chisel, tube level, rubble stone, cement, fine aggregate, water

Carry out RR masonry work in cement/lime mortar with a ratio of 1:4 using provide rubble stones as per the given sketch up to 600mm height.

1.	Carry out preparatory works including selection and visual check of the tools and		
	material being used	(5 Marks)	
2.	Read and interpret sketch for work	(5 Marks)	
3.	Carry out surface preparation for RRM	(5 Marks)	
4.	Prepare/mix waterproof solution with required proportion	(5 Marks)	
5.	Construct 450mm thick random rubble masonry as per given sketch.	(20 Marks)	
6.	Perform Struck pointing.	(15 Marks)	



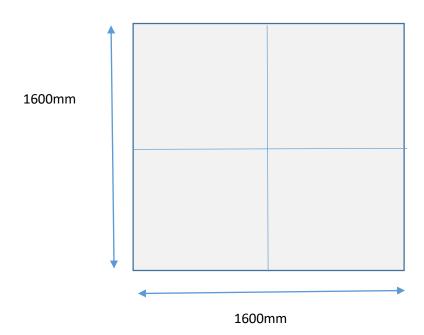
#### CON/N0114: Carry out IPS / Tre mix flooring works Duration: 75 minutes

#### Infrastructure and tools required:

- 1.) Infra Store room, Class room for 30 candidates, Practical yard (30 meter x 30 meter),
- 2.) Tools & materials Measuring tape, trowel, dressing hammer, spall hammer, chisel, spirit level, plumb bob, straight edge, line thread, mortar pan, brush, chisel, tube level, power floater, VDF, cement, fine aggregate, water, glass strip

Carry out 150mm thick Tremix flooring as per the given sketch using mix of 1:1.5:3.

- Carry out preparatory works including selection and visual check of the tools and material being used (5 Marks)
- 2. Read and interpret details and specification for IPS/ Tre mix flooring including type of concrete mix, finishing, thickness, bay size etc (10 Marks)
- 3. Carry out surface preparation for flooring (10 Marks)
- 4. Perform Tremix flooring (20 Marks)
- 5. Fix glass strip (15 Marks)
- 6. Level and finish surface using power floater (20 Marks)



### CON/N8001: Work effectively in a team to deliver desired results at the workplace

Assessor is required to assess this NOS bases on his/her observation skill and knowledge to observe, ask questions and assess trainee while performing all core NOS's during the practical task for following points:

- 1. How the candidate communicates work related information to team member or to assessor.
  - Is the candidate able to explain the process/sequence before performing every task?
  - Is the candidate able to communicate properly with other candidate while transferring level through tube level? ( while performing flooring)
- 2. How the candidate escalate deviations to the seniors/assessor. (10 Marks)
- 3. How the candidate addresses and reports problems. (15 Marks)
  - If the candidate noticed damaged tool or material (assessor to provide damaged tool or material to the candidate to assess this skill)
  - If candidate noticed shortage of materials while performing task
  - If trainee facing problem with shortage of working space
  - If trainee found lack of illumination while performing the task.
- 4. How a person receive and follow the instructions given by seniors/assessor. (15 Marks)
  - Is candidate able to follow class room disciplines?
  - Is candidate able to follow instructions given by assessor?
- How a person seeks clarifications and resolves the issues raised during performing the task.
   (15 Marks)
  - Is the candidate able to clarify if the information given for particular task is insufficient?
- 6. How a person works as a team, like, proper cooperation, timely handing over tools and materials, helping and advising team members, etc. (15 Marks
  - Is the candidate able to take support of team member (other candidate), if he needs to move heavy materials to clear the work area?
  - Is the candidate able to hand over the tools timely to other candidate? (For example Tube level, gauge box, mixing platform etc.)

#### CON/N8002: Plan and organize work to meet expected outcomes

Assessor is required to assess this NOS bases on his/her observation skill and knowledge to observe, ask questions and assess trainee while performing all core NOS's during the practical task for following points:

- 1. How a person understand the targets and time line set by supervisor. (10 Marks)
  - Is candidate able understand the target clearly? (for any core task)
- 2. How a person plan activities as per schedule and sequence. (10 Marks)
  - Is candidate able to explain the plan and sequence before performing any core task? (assessor to ask candidate to explain the sequence of task (for any core task)
- 3. How a person provide guidance to the subordinates to obtain desired outcome.

(15 Marks)

Is candidate able to guide other candidate while working together? (for any core task)

- 4. How a person arrange required resources prior to commencement of work. (15 Marks)
  - Is candidate able to arrange right quantity of material?
- 5. How a person utilize resources effectively during performing the task. (15 Marks)
  - Is candidate able to use the stone, sand, mortar, cement with allowable waste limit?
  - Is able to engage helpers properly?
- 6. How a person adhere to the standard instructions while performing the task. (15 Marks)
  - Is candidate able to follow standard instructions? (Ex. Class room discipline, using proper PPE's, care on surrounding environments etc.)

### CON/N9001: Work according to personal health, safety and environment protocol at construction site

**Duration: 30 minutes** 

- 1. How person identify hazards, risks in site and report to seniors (10 Marks)
  - Is candidate able to escalate hazards, risks to the senior? (Ex. Damaged tools, unguarded machineries, inadequate illumination, co-worker working at height without using safety harness, damaged electrical cables etc.)
- 2. How a person respond to emergency and evacuation procedures in case of accidents, fires. (10 Marks)
  - Is candidate able to explain the emergency evacuation procedure in case of different emergencies? (Ex. Fire, building collapse, flood etc.)
- 3. Use of personal protective equipment listed below (20 Marks) (Use of PPEs specified at NOS is mandatory for all the assesse and candidate should score 100% mark in this particular outcome.)
  - Is candidate able to demonstrate the use of all personal protective equipment's?
     (Ex. Helmet, harness, safety goggles, safety shoes, hand gloves, gum boot, earplug, dust mask, reflective jacket, shoulder pack, etc.
  - Is the candidate able to list PPE's as per the particular task?
- 4. Identification and operation procedure for fire extinguishers. (10 Marks)
  - Is candidate able to identify different types of fire extinguishers? (Ex. DCP, CO2, Foam etc.).
  - Is candidate able to demonstrate the operating procedure for different types of fire extinguishers? (Assessor to insist candidate to perform this task
- 5. Handling technique of tools, materials and equipment. (10 Marks)
  - Is candidate able to explain the handling techniques of tools, materials and equipment?
- 6. Adhere to safe working practices while working at height, using tools and equipment, material shifting, working with hazardous materials etc. (10 Marks)
  - Is candidate able to follow precautionary measures in disposal of harmful chemicals?
- 7. Ensure cleaning, housekeeping and waste disposal. (10 Marks)
  - Is candidate able to plan housekeeping while performing the task?
  - Is candidate able explain the method to shift waste to designated yard? (Ex. Through wheel barrow, through chute, through open dump etc.)

Theoretical Questions: Duration: 1.5 hrs

**Total Marks: 160 marks** 

#### CON/N0110: Construct masonry structures using brick /block

1.	What is the first step towards giving layout of a structure on the ground?  a. Ask the supervisor	3 Marks
	b. Select a baseline with respect to which layout can be given	
	c. Draw the outline of the structure on the ground with chalk	
	d. Mark the outline of the structure on the ground with a pickaxe	
2.	What must be ensured prior to starting brickwork?	3 Marks
	a. The bricks are stacked properly	
	b. The bricks have frogs in them	
	c. The bricks are well dried in the sun	
	d. The bricks are soaked in water	
3.	For how many days should the brick masonry in cement mortar be cured?	4 Marks
	a. One day	
	b. Seven days	
	c. Twenty one days	
	d. Twenty eight days	
4.	Why are queen closers used in the brickwork?	4 Marks
	a. To ensure that the job is completed	
	b. To fill up holes left by scaffolding materials	
	c. To hold the bricks in position	
	d. To ensure that the vertical joints in the brickwork are not in the same lin	e
5.		3Marks
	a. Half brickwork	
	b. Full brickwork	
	c. One and half brickwork	
	d. Circular brickwork	
6.	The last brick laid in the centre of the arch is called	3Marks
	a. Crown	
	b. Extrados	
	c. Keystone	
	d. Inclination	

#### CON/N0111: Execute plaster on internal & external Masonry & RCC structure

1.	For new brickwork, where subsequent plastering is to be done, the raking of joints shall be done				
	dur	ing the progress of the work to a depth of	3 Marks		
	a.	5mm			
	b.	10mm			
	c.	15mm			
	d.	20mm			
2.	Sieving of sand used for plastering should be done such that the following percentage of sand				
		ould pass 2.36 mm sieve: 0 to 50 percent	4 Marks		
	b.	20 to 65 percent			
	c.	80 to 90 percent			
	d.	95 to 100 percent			
3.	a.	e freshly mixed cement mortar should be consumed Within 30 minutes	3 Mark		
	b.	Within 2 hours			
	c.	Within 4 hours			
	d.	In the same day			
4.	The	e finishing coat of plaster is generally done to a thickness of  10mm to 15mm	3 Mark		
	b.	10mm to 12mm			
	c.	3mm to 8mm			
	d.	1mm to 2mm			
5.	What are the tools used for checking horizontal and vertical alignment during plastering?  3 Marks				
	a.	Thread and chalk			
	b.	Straight edge and plumb			
	c.	Float and square			
	d.	Trowel and ruler			
6.	Wh	nat should be done to ensure uniform thickness of plaster?	4 Marks		
	a. First fix dots (button marks) on the wall according to thickness of plaster				
	b.	Check the verticality of dots, one over the other, by means of plumb-bo	b		
	c.	Form vertical strips of plaster, known as screeds, in between the dots			
	d.	All the above			

### CON/N0112: Carry out waterproofing work for structures using cementitious materials

3 Mark

1. What is the first layer for waterproofing of concrete roof slab?

	a. b.	Cement mortar 1:3 mixed with waterproofing compound 75mm thick lean concrete 1:3:6		
	С.	Cement slurry using cement mixed with waterproofing compound		
		Brick bats laid to slope		
2.		nstruction of parapet wall, fixing of down take pipes, water pipes, conduine	ts etc. should be 3 Mark	
	a.	After 14 days of completing the waterproofing work		
	b.	After 7 days of completing the waterproofing work		
	c.	Along with the waterproofing work		
	d.	Before starting the waterproofing work		
3.		construction of brick bat coba, the base coat should be continued up to $\_$ Marks	<del>.</del>	
	a.	Full height of the parapet wall including the top		
	b.	600mm over the parapet wall		
	c.	300mm over the parapet wall		
	d.	Bottom of the parapet wall		
4.	What is the minimum thickness of the brick bat coba layer in waterproofing of concrete roof:  4 Mark			
	a.	25mm		
	b.	70mm		
	c.	150mm		
	d.	200mm		
5.	For	construction of brick bat coba, the brick bats should be properly dampe	ned for at least 3 Marks	
	a.	6 days		
	b.	1 day		
	c.	6 hours		
	d.	1 hour		
6.	Wł	nat is the finishing layer in brick bat coba construction?	3 Marks	
	a.	40mm thick cement concrete admixed with waterproofing compound		
	b.	Tarpaulin properly secured at edges with cement concrete		
	c.	Waterproof paint		
	d.	20mm thick cement sand mortar 1:4 admixed with waterproofing comp	ound	

#### CON/N0113: Build structures using random rubble masonry

1.	<ul> <li>What is a 'bond stone' in random rubble masonry?</li> <li>a. Stone of smaller size used for breaking the line of vertical joints</li> <li>b. Long stone to hold the wall together transversely across the width</li> <li>c. Alternate stone in every course</li> <li>d. Last stone in every course</li> </ul>	4 Mark
2.	<ul> <li>What are hearting stones?</li> <li>a. Chips or spalls of stones used for filling the voids between adjacent s</li> <li>b. Hammer dressed stones approximately regular in shape</li> <li>c. Stones not less than 150mm in size used for interior filling of wall</li> <li>d. Heart shaped stones</li> </ul>	4Marks tones
3.	In RR masonry, raking is done  a. To identify the location of joints  b. To seal the joints  c. To repair cracks in the wall  d. When pointing or plastering is required to be done	3 Mark
4.	The pointing in stone masonry needs to be cured for at leasta. 3 days b. 7 days c. 14 days d. 21 days	3 Marks
5.	Levelling of the top in RR masonry at plinth level/roof level is done  a. Using Kota stone slabs 40mm thick b. Using hammer dressed stones in the top course c. Using cement mortar 1:4 d. Using concrete comprising 1 part mortar and 2 parts graded aggregation	
6.	<ul> <li>How are the joints made and finished in RR masonry?</li> <li>a. Joints are fully packed 'with mortar and chips.</li> <li>b. Face joints should not be more than 20mm thick.</li> <li>c. Joints to be made flush if plastering is not to be done</li> <li>d. All the above</li> </ul>	3 Marks

#### CON/N0114: Carry out IPS / Tre mix flooring works

- 1. What are the jobs that must be completed before start of concrete flooring work? 4 Mark
  - a. Plastering of inside walls and ceilings and fixing of door frames
  - b. Finishing of subfloor or bases
  - c. Both of these
  - d. None of these
- 2. Which is not the part of steps in construction of IPS flooring using glass or metal strips?4Marks
  - a. Form panels using glass/ metal strips
  - b. Place concrete in panels and level the surface
  - c. Pour aggregated over the surface
  - d. Finish with cement slurry
- 3. The size of the panels for laying concrete floors should be such that \_\_\_\_\_. 3 Mark
  - a. Length is not equal to breadth
  - b. Length is not more than one and half times the breadth
  - c. Length is more than one and half times the breadth
  - d. Length is more than twice the breadth
- 4. Flooring work should be done \_\_\_\_\_. 3 Marks
  - a. Before interior plastering
  - b. Before fixing door frames
  - c. Along with interior plastering and fixing of door frames
  - d. After interior plastering and fixing of door frames
- 5. In the tremix system of concrete flooring, the suction pressure of the de-watering machine should be . 3 Marks
  - a. Lower than atmospheric pressure
  - b. Equal to atmospheric pressure
  - c. High enough but such that no cement particle is visible in the water coming out
  - d. Very high so as to remove all the water
- 6. Identify the equipment used in tremix system of flooring. 3 Marks
  - a. Groove cutter
  - b. Screed vibrator
  - c. Vacuum pump
  - d. Power trowel



### CON/N8001: Work effectively in a team to deliver desired results at the workplace

- 1. Which among the following need not be reported to superiors? 3 Marks
  - a. Wrong handling of equipment during work
  - b. Incompetent worker engaging the task
  - c. Deviation in sequence of activity
  - d. Worker consuming food during work
- 2. Which among the following is cause for negative development of team? 4 Marks
  - a. Communication gap
  - b. Lack of manpower
  - c. Improper house keeping
  - d. Incompetent worker
- 3. What steps are taken when you observe a worker not wearing the safety gears (PPE's) while working?

  4 Marks
  - a. Stop the entire work
  - b. Wait till the worker completes the task and warn him to wear the safety gears
  - c. Do not bother and continue to work
  - d. Inform to the reporting senior and help him to realize the importance of wearing safety gears
- 4. Select the more correct option for effective "utilization of the tools/equipment. 3 Marks
  - a. Unnecessary delay in work
  - b. Consume lot of manpower
  - c. Unnecessary utilization of supervisor's time
  - d. Assist the interfacing team to complete their work
- 5. What does it aid in discussing the deviation found in work with sub-ordinates? 3 Marks
  - a. Help in taking preventive actions in its re-occurrence
  - b. Help in warning the workers
  - c. Help in punishing them with penalty
  - d. Help in replacing the workers in team
- 6. What should be done if there is lack of coordination found within the team? 3 Marks
  - a. Discuss with team member and resolve the conflict
  - b. Do not bother about others' opinion and argue with them
  - c. Stop the work and protest with the team member
  - d. Escalate it to the management and wait for the action

#### CON/N8002: Plan and organize work to meet expected outcomes

	-	·	
1.	a. b. c.	ich of the following is essential to track the work progress?  Work schedule  Quality report  Drawings  Work permit	3 Marks
2.	a. b. c.	Force him to do it himself Inform about it to the customer Complain to the reporting senior and continue with the job Provide guidance and help him with known skills	ting a task? 3 Marks
3.	a. b. c.	at is the first thing one has to do for starting a new work? Discuss and plan the details of the work with the client/consultant. Discuss and plan the details of the work with his team Collect the materials from store Collect the tools relevant to the job	3 Marks
4.	a. b. c.	en is/are a worker/workers found incompetent and deviating the work pr Stop the assigned work and train him Force them to do their work Hand over the workers to other team Inform the reporting senior and ask for competent persons	ocedure? 4 Marks
5.	a. b. c.	ich among the following hinder the timely completion of project? Engage right tool for the right job Follow safe operating procedures and instructions Ensure accuracy while measuring and marking None of the above	4 Mark
6.	a. b. c.	ribution of work among the workers is based on - Skills and competency Punctuality and discipline Physical appearance of the worker Age of workers	3 Marks

### CON/N9001: Work according to personal health, safety and environment protocol at construction site

1.	Wh	3 Marks	
	a.	Working without PPE	

- b. Adhering to the instruction
- c. Helping subordinate
- d. Using correct tools
- 2. What are the uses of attending a Mock Fire Drill?

3 Marks

- a. Fight against fire and safeguard co-workers
- b. Increasing confidence to work during fire breakout
- c. Learning Evacuation and emergency procedure
- d. It is just a routine exercise
- 3. What is the best method to obtain information about health and safety regulations?

3 Marks

- a. Ask site visitors
- b. Get it from the management staff
- c. Attend Health and Safety campaigns
- d. From the manufacturer's handbooks
- 4. What should be done when one see a guard rail used for safe access of worker as well for material is found damaged?

  4 Marks
  - a. Stop the access and inform reporting senior/safety team
  - b. Do not bother as it is the responsibility of safety team to notice and rectify the problem
  - c. Allow access and inform safety team
  - d. Start training the workers to face circumstance
- 5. What are the three basic requirements of a fire?

4 Marks

- a. Fuel, heat and hydrogen
- b. Fuel, heat and oxygen
- c. Fuel, heat and Sulphur
- d. Fuel, heat and nitrogen
- 6. Which one of the following is not a safety requirement for a power tool? 3 Marks 4 Marks
  - a. Make sure that the machine is in good working condition
  - b. Make sure that the machine has safety guards
  - c. Make sure that the operator is trained properly
  - d. Make sure that the machine is brand new