Assistant Bar Bender and Steel Fixer

Assessment Blueprint

Assessment Overview

Sector	Construction
Job Role	Assistant Bar Bender and Steel Fixer
QP Code	CON/Q0202
Version	4.0
NSQF level	3
No. of Questions (Theory + Practical+Viva)	39+8+10=57
Duration (Minutes)	Theory: 60 Minutes Viva: 60 Minutes Practical: 360 Minutes
Acceptable level of variance in duration and no. of Questions Per NOS	+-10%
Language	English

INSTRUCTIONS

1. Total duration of the examination is 480 Minutes (Theory: 60 Minutes + Viva: 60 Minutes + Practical: 360 Minutes)
2. This test contains 39 Theory, 8 Practical and 10 Viva questions.
3. The Theory section includes MCQ Type and Pictographical Type Questions.
4. Practical section contains a single job pertaining to respective NOS which should be completed in the allocated time.
5. Viva section contains 10 questions which should be completed in only during Practical allocated time.
6. For practical and viva, an assessor will be assigned with both Measuremental and Judgemental Assessment criterion and it will be referred during Assessment proccess.

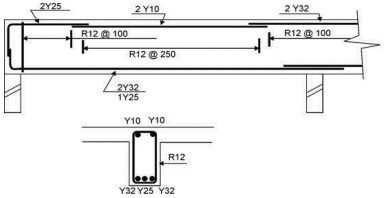
Sample Questions - Theory										
S.No.	**NOS Code**	**NOS Details**	**Question Type**	**Question**	**Option 1 (A)**	**Option 2 (B)**	**Option 3 (C)**	**Option 4 (D)**	**Correct Answer**	**Marks Assigned for the Question**
1	CON/N0214	Read and understand the reinforcement bar details	MCQ Type	Which of the following rebar shapes is used to create corners in reinforced concrete structures?	Straight rebar	L-shaped rebar	U-shaped rebar	Spiral rebar	B	6
2				What is the cutting length of a rebar for a circular shape with a diameter of 1000mm, considering no bends?	1000 mm	1234.5 mm	3141.6 mm	4241.3 mm	C	6
3				How much concrete cover is recommended for a slab exposed to moderate weather conditions?	10mm	20mm	45mm	70mm	B	6
4				What is the standard thickness of black annealed binding wire used in tying smaller diameter rebar?	0.5mm	0.75mm	1.0mm	1.2mm	C	6
5				In bar bending, which measurement unit is commonly used to specify the diameter of reinforcement bars?	Inch	Centimeter	Millimeter	Foot	C	6
6	CON/N0215	Use and maintain reinforcement related materials, tools and	MCQ Type	What is the most commonly used type of sling for lifting rebar bundles?	Chain sling	Wire rope sling	Synthetic web sling	Round sling	B	6
7				Which tool is best suited for aligning reinforcement bars at a specific spacing?	Sledgehammer	Chisel	Pin plate	Hook	C	6
8				Which of the following is a common application of a shearing machine in steel fixing?	Cutting rebar for small projects	Cutting rebar for large-scale construction	Bending rebar into shapes	Welding rebar joints	B	6

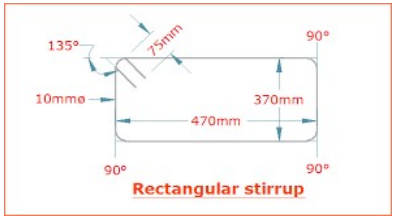
9		tools and equipment		What type of gloves should be worn when using a bending machine?	Cotton gloves	Rubber gloves	Cut-resistant leather gloves	Disposable latex gloves	C	6
10				How should you position your feet when using a bending machine for better balance and stability?	Close together	Wide apart	One foot raised	Feet parallel and together	B	6
11	CON/N0216	Perform cutting and manual bending of rebar in simple shapes	MCQ Type	What is the unit weight of a steel bar with a diameter of 16 mm?	1.58 kg/m	2.00 kg/m	1.98 kg/m	1.64 kg/m	A	6
12				What is the acceptable tolerance for the angle of a bent rebar?	±1 degree	±2 degrees	±5 degrees	±10 degrees	B	6
13				Which type of stirrup is most commonly used in beam reinforcement?	Spiral stirrup	Rectangular stirrup	Circular stirrup	Triangular stirrup	B	6
14				Which method of rust prevention involves coating steel with a layer of zinc?	Galvanization	Painting	Cathodic protection	Epoxy coating	A	6
15				Which rebar diameter is used for reinforcing the heavily loaded footing of a structure?	10 mm	12 mm	20 mm	40 mm	C	6
16	CON/N0217	Assist in fabricating, placing and fixing rebar	MCQ Type	Which tie is commonly used to secure bars in a U-shaped configuration?	Slash tie	Hair-pin tie	Crown tie	Lap tie	B	6
17				What should be the minimum distance between the laps of two adjacent bars in a slab?	0.5 times the lap length	1.0 times the lap length	1.3 times the lap length	2.0 times the lap length	C	6
18				What is the correct sequence for fixing reinforcement in a wall?	Vertical bars, horizontal bars, then ties	Horizontal bars, vertical bars, then ties	Ties, vertical bars, then horizontal bars	Ties, horizontal bars, then vertical bars	A	6
19				Which of the following is a common material used for making cover blocks?	Wood	Plastic	Metal	Glass	B	6

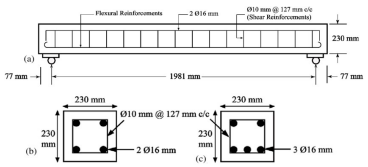
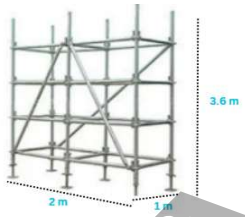
20				What is the correct sequence for tying rebar in a prefabricated slab cage?	Bottom layer, top layer, then ties	Ties, bottom layer, then top layer	Top layer, bottom layer, then ties	Bottom layer, ties, then top layer	D	6
21	CON/N0101	Erect and Dismantle Temporary Scaffold up to 3.6 m Height	MCQ Type	Which type of coupler is most commonly used to join two scaffold pipes at any angle?	Sleeve coupler	Putlog coupler	Swivel coupler	Double coupler	C	6
22				What is the purpose of checking the scaffold's vertical standards during a visual inspection?	To ensure they are unevenly spaced and properly secured	To verify they are plumb and properly aligned	To check if they are made of lightweight materials	To confirm they are of non-uniform height for load distributio n	B	6
23				Which component is used to support scaffold planks in cup lock scaffolding?	Vertical standards	Base plates	Ledgers	Swivel couplers	C	6
24				When dismantling scaffolding, what is the first component to remove?	Base plates	Vertical standards	Scaffold planks	Couplers	C	6
25				Which component of scaffolding helps in vertical movement between different levels?	Walkways	Guard rails	Ladder	Toe board	C	6
26				How does team collaboration impact decision-making in construction projects?	Decisions are made without input	It leads to delayed decision-making	It helps to make inclusive and well-informed decisions	It reduces the number of ideas shared	C	6
27				Which of the following is a common item on a work checklist for steel fixing?	List of required PPEs	Weekly payroll calculation s	Names of all workers on site	Daily weather updates	A	6

28	CON/N8001	Work Effectively in a Team to Deliver Desired Results at Workplace	MCQ Type	Who is responsible for issuing a work permit for high-risk steel fixing tasks?	The site supervisor or safety officer	Any worker on the construction site	The supplier of the construction materials	The client or project owner	A	6
29				What is the role of communication in ensuring the correct interpretation of blueprints and plans?	It helps clarify any doubts and ensures accurate execution	It reduces the number of tools needed	It eliminates the need for supervision	It allows workers to work independently	A	6
30				What should an Assistant Bar Bender do if they notice a problem that could pose a safety risk?	Ignore the problem and continue working	Report the issue to the supervisor immediately	Fix the problem themselves without informing anyone	Wait for someone else to notice the problem	B	6
31	CON/N9001	Work According to Personal Health, Safety and Environment Protocols at Construction Site	MCQ Type	What does a yellow helmet signify on a construction site?	A general labourer	A safety officer or inspector	A visitor or new worker	A supervisor or manager	A	6
32				Which type of hazard is commonly faced during bar bending and steel fixing work?	Slips, Trips, and Falls	Cuts, and Abrasions	Strains and Back Injuries	All of these	D	6
33				What is the primary fuel source in a Class A fire?	Liquids like petrol and diesel	Electrical circuits and appliances	Solids like wood, paper, and cloth	Gaseous substances like LPG	C	6
34				Which fire extinguisher type is most suitable for a fire involving flammable metals?	Foam extinguisher	CO2 extinguisher	Class D powder extinguisher	Water extinguisher	C	6

35				How should metallic waste from bar bending be disposed of?	Sent to a landfill	Sent it to recycling facility	Burned in an incinerator	Buried on-site	B	6
36	DGT/VSQ/N 0101	Employability Skills (30 Hours)	MCQ Type	Which of the following is/are the social media platforms?	LinkedIn	Twitter	YouTube	All of these	D	5
37				While addressing your higher officials, you should be	Formal and polite	impolite	informal and courteous	Informal	A	5
38				Which of the following should you choose to open a savings account?	Credit Union	Stock Brokerage	Bank	Insurance Company	C	5
39				What is the best approach for creating a career development plan?	Create a plan with only short-term goals	Establish goals without any timeline	Develop a plan with both short- and long-term goals	Focus only on long-term goals	C	5
TOTAL										**230**

Sample Questions - Practical						
S.No.	**NOS Code**	**NOS Details**	**Question Type**	**Question**	**Tasks to be Performed**	**Marks Assigned for the Question**
1	CON/N0214	Read and understand the reinforcement bar details	Structured Practical Task	Interpret and list the information as per the given drawing.  	Identify the type of the rebar. Identify the diameter of the rebar. Identify the number and shape of the rebar. Calculate the cutting length of the rebar. Identify the cover for rebar from the given diagram. Read the spacing details for stirrups. Read the spacing details for bar chairs, spacer bar from the given diagram.	60
2	CON/N0215	Use and maintain reinforcement related materials, tools and equipment	Structured Practical Task	Using a 2 m long, 12–20 mm diameter reinforcement bar, demonstrate the use of different power tools by performing the following operations: a) Cut the reinforcement bar using a circular cutting machine (handheld and table-mounted). b) Mark and cut threads on the reinforcement bar using a threading machine. c) Bend the reinforcement bar to the required angle/shape using a bar bending machine.	Wear the required PPE and inspect all machines before starting the work. Measure and mark the required cutting length on the rebar. Secure the rebar properly and cut it using the handheld circular cutting machine. Repeat the cutting operation using the table-mounted circular cutting machine. Measure and mark the required threaded portion of the rebar. Secure the rebar in the threading machine and cut the required threads. Measure and mark the required bending position and angle. Place the rebar correctly in the bar bending machine and bend it to the required angle/shape. Switch off the machines and ensure all moving parts have stopped. Check the cut, threaded, and bent portions of the rebar and clean the work area.	60

3	CON/N0216	Perform cutting and manual bending of rebar in simple shapes	Structured Practical Task	 Perform marking, cutting, and bending of rebar to the specified length and diameter of 10 mm within the specified tolerance as per the provided drawing using hand-cutting tools/power-cutting tools.	Study the provided drawing and identify the required rebar diameter (10 mm), length, bend shape, and dimensions. Check the 10 mm rebar for visible defects, rust, damage, or excessive bending before starting the work. Measure the required length using a measuring tape or steel rule and mark the cutting point with chalk or a marker. Secure the rebar properly on a stable work surface before cutting. Cut the rebar at the marked point using the specified hand-cutting tool or power-cutting tool, following safe operating practices. Measure the cut piece again and verify that its length is within the specified tolerance in the drawing. Mark the required bending points on the rebar according to the dimensions shown in the drawing. Place the rebar correctly in the rebar bending tool/machine and align the marked bending point with the bending reference. Bend the rebar gradually to achieve the required angle, shape, and dimensions without damaging or excessively deforming the bar. Inspect the finished rebar against the drawing and verify the diameter, length, bend locations, angles, and overall dimensions are within the specified tolerance.	60

4	CON/N0217	Assist in fabricating, placing and fixing rebar	Structured Practical Task	Perform the placing and fixing of rebar for the beam as per the provided sketch 	Place and fix chairs as per the requirement	60
					Select and fabricate the required bars/chairs/ties	
					Fix rebar	
					Fix ties using hair pin tie/ring hair pin tie/slash tie/ring slash tie	
					Mark/place/fix and tie stirrups	
5	CON/N0101	Erect and Dismantle Temporary Scaffold up to 3.6 m Height	Structured Practical Task	Perform the erection of a scaffold (up to 3.6 m height) using pipes and couplers, cup-lock system, or H-frame with appropriate hand tools for a 2-bay structure (1m x 1m each). 	Identify tools & tackles as per the material used for scaffolding	60
					Carry out inspection of tools for serviceability/safety	
					Carry out arrangement of materials for scaffold erection	
					Check for availability of all safety equipment and use them as per standards	
					Provide base support and anchoring as per scaffolding such as pipe/system and check the rigidity of support	
					Secure joints in Scaffolding (Types such as Coupler / Knots / Pins)	
					Follow proper sequence of the erection and dismantling as per the type of scaffolding	
					Check for the verticality and rigidity of structure	

6	CON/N8001	Work Effectively in a Team to Deliver Desired Results at the Workplace	Structured Practical Task	Based on the performance of identifying and performing the core NoS tasks.	How the candidate communicates work-related information to a team member or the assessor while performing core NoS tasks	70
					How the candidate escalates deviations to the seniors/assessor while performing core NoS	
					How the candidate addresses and report problems while performing core NoS	
					How a candidate receives and follow the instructions given by seniors/assessors	
					How a candidate seeks clarifications and resolves the issues raised while performing the tasks	
					How a candidate works as a team like, proper cooperation, timely handing over tools and materials, helping and communicating with team members	
7	CON/N9001	Work According to Personal Health, Safety and Environment Protocols at Construction Site	Structured Practical Task	Demonstrate the following A.. The proper use of any two Personal Protective Equipment (PPE), such as a helmet and safety jacket B. The proper operation of a fire extinguisher.	**A**	70
					Select any two PPE, such as a helmet and safety jacket.	
					Check the PPE for any damage.	
					Wear the helmet and safety jacket correctly.	
					Check that the PPE fits properly and is securely worn.	
					B	
					Identify the correct type of fire extinguisher.	
					Remove the safety pin.	
					Aim the nozzle at the base of the fire.	
					Squeeze the handle to discharge the extinguisher.	
					Move the nozzle from side to side until the fire is controlled.	
					Return the extinguisher safely after use.	

8	DGT/VSQ/N 0101	Employability Skills (30 Hours)	Structured Practical Task	Demonstrate the following A. The procedure for making a bank-to-bank transfer using UPI B. Logging in to Gmail account	**A**	30
					Open the UPI app and log in using the registered credentials.	
					Select Send Money/Bank Transfer.	
					Enter the receiver's bank account details or select the required UPI option.	
					Enter the amount and verify the receiver's details.	
					Enter the UPI PIN to complete the transaction.	
					Check the transaction status and confirmation	
					B	
					Open a web browser or the Gmail app.	
					Enter the Gmail website/app and select Sign in.	
					Enter the registered Gmail ID.	
					Enter the password and complete verification if required.	
					Check that the Gmail inbox opens successfully.	
TOTAL						**470**

Sample Questions - Viva						
S.No.	**NOS Code**	**NOS Details**	**Question Type**	**Question**	**Suggested Answer**	**Marks Assigned for the Question**
1	CON/N0214	Read and understand the reinforcement bar details	Oral Type	What is the purpose of reinforcement bars in concrete?	Reinforcement bars provide strength and support to concrete and help resist tensile forces.	5
2				What information is usually given in reinforcement bar details?	Bar diameter, length, spacing, shape, quantity, and bending details are usually given.	5
3	CON/N0215	Use and maintain reinforcement related materials, tools and equipment	Oral Type	Name two tools used for reinforcement work.	Rebar cutter and bar bending machine are commonly used.	5
4				Why should reinforcement tools and equipment be maintained?	To ensure safe and proper operation and increase their service life.	5
5	CON/N0216	Perform cutting and manual bending of rebar in simple shapes	Oral Type	Which tool is commonly used for cutting rebar manually?	A hacksaw or suitable rebar cutting tool can be used.	5
6				Why is rebar bent according to the required shape?	To obtain the required reinforcement shape and dimensions as specified in the drawing.	5
7	CON/N0217	Assist in fabricating, placing and fixing rebar	Oral Type	What is the purpose of placing reinforcement bars in concrete?	To provide tensile strength and improve the strength of the concrete structure.	5
8				Why should reinforcement bars be properly fixed?	To keep the bars in the correct position and spacing during concreting.	5

9	CON/N0101	Erect and Dismantle Temporary Scaffold up to 3.6 m Height	Oral Type	Why are braces provided in a scaffold?	Braces provide stability and prevent the scaffold from swaying.	5
10				What should be checked before using a scaffold?	Check that it is stable, level, properly braced, and securely assembled.	5
TOTAL						**50**