

CONTACT DETAILS OF THE BODY SUBMITTING THE QUALIFICATION FILE

Name and address of submitting body:

Directorate General of Training (DGT),
Ministry of Skill Development & Entrepreneurship (MoSDE)
Pusa, New Delhi

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List of documents submitted in support of the Qualifications File

1. Qualification document- Basic of Anatomy & Physiology
2. Curriculum for Basic of Anatomy & Physiology under Medical Sector for Modular Employable Scheme (MES)
3. Executive Summary of Human Resource and Skill Requirements in Health Care sector (2013-17, 2017-22), Volume 14 by NSDC

SUMMARY

1	Qualification Title	Basic of Anatomy & Physiology
2	Qualification Code, if any	MED102
3	NCO code and occupation	-NA-
4	Nature and purpose of the qualification (Please specify whether qualification is short term or long term)	Nature of the Qualification is Certificate in Basic of Anatomy & Physiology The purpose of the qualification is to enhance the competency of an candidate by providing him knowledge of structure and function of various system of human body
5	Body/bodies which will award the qualification	National Council for Vocational Training (NCVT)
6	Body which will accredit providers to offer courses leading to the qualification	GOI Ministries and State departments who have adopted MES qualifications, accredit training providers for their programs and schemes (only in case of SDIS schemes Training providers accredited by States on behalf of NCVT)
7	Whether accreditation/affiliation norms are already in place or not , if applicable (if yes, attach a copy)	-NA-
8	Occupation(s) to which the qualification gives access	After completion of the course, competency of the candidate will enhanced to hone their skill in medical sector. It is an educative course to enhance the qualification of an candidate and progress further to higher level courses.
9	Job description of the occupation	It is an educative course for competency enhancement of an candidate for proficiency in jobs
10	Licensing requirements	-NA-
11	Statutory and Regulatory requirement of the relevant sector (documentary evidence to be provided)	-NA-
12	Level of the qualification in the NSQF	Level 2
13	Anticipated volume of training/learning required to complete the qualification	300 hours
14	Indicative list of training tools required to deliver this qualification	Mentioned in curriculum attached

15	Entry requirements and/or recommendations and minimum age	Passed 10th class examination and completed 14 years of age	
16	Progression from the qualification (Please show Professional and academic progression)	An individual can proceed for higher level courses in Medical sector like Nursing and Health care worker.	
17	Arrangements for the Recognition of Prior learning (RPL)	RPL arrangements are not planned under this qualification.	
18	International comparability where known (research evidence to be provided)	-NA-	
19	Date of planned review of the qualification.	5 years after approval of the Qualification	
20	Formal structure of the qualification		
	Mandatory components		
	Title of component and identification code/NOSs/Learning outcomes	Estimated size (learning hours)	Level
(i)	(i) DGT/MES/MED/N06: Understand the Basic Anatomy of the Human Body	50	2
(ii)	(ii) DGT/MES/MED/N07: Acquire detailed knowledge of Human Body parts- Bone, Muscle, Nerve, Joints, Blood & Skin	100	2
(iii)	(iii) DGT/MES/MED/N08: Understand the vital systems of Human Body:- Digestive, Renal, Respiratory, Cardiovascular, Reproductive	100	2
(iv)	(iv) DGT/MES/MED/N09: To have Knowledge of Microscopic operations	50	2
	Sub Total (A)	300	
	Optional components		
	Title of component and identification code/NOSs/ Learning outcomes	Estimated size (learning hours)	Level
	Sub Total (B)		
Total (A+B)		300	

SECTION 1
ASSESSMENT

21	<p>Body/Bodies which will carry out assessment: DGT empaneled Assessing Bodies (ABs)</p>
22	<p>How will RPL assessment be managed and who will carry it out? RPL arrangements are not planned under this qualification.</p>
23	<p>Describe the overall assessment strategy and specific arrangements which have been put in place to ensure that assessment is always valid, reliable and fair and show that these are in line with the requirements of the NSQF.</p> <p>Criteria for selection of Assessment body</p> <p>Minimum Eligibility Criteria</p> <ul style="list-style-type: none"> • The applicant shall be a legal entity, registered in India. • The applicant should have in last two years carried out competency / skill assessment for minimum 1000 persons or should have trained minimum 1000 persons and got tested by some agencies such as NCVT, Sector Skill Council, State, board/ council and reputed industry Association. Organizations having experience in testing of competencies would be preferred. • In case more number of applications is received, preference will be given to those organizations that have trained/assessed larger number of persons. • The applicant is not a Training Provider (TP) in the same sector and in same State, but it can be TP in other States, other Sectors or other scheme. • The applicant shall have access to technically qualified personnel of repute and integrity in different industrial trades and technology. • The applicant shall develop dedicated human resource for handling the processes in assessment process. • The applicant shall declare its linkages with other organization(s), if any to ensure independence and avoid any conflict of interest. • Institutions/ Firms blacklisted by any Government Department shall not be considered in this RFP. • The Applicant shall provide the information and supporting documents towards their claims. • Initially provisional empanelment will be awarded to the organizations based on the evaluation of eligibility of the Assessing Body based on the criteria. • Based on the module and sector that will be handled by the assessor, the assessing body shall send its assessor for competency evaluation in the institutions which will be notified by DGT time to time. The assessor will be assessed to ascertain the competency to carry out competency based assessment.

- Final empanelment would be granted subject to the Assessing Body fulfilling the following conditions of getting the competencies of 2 assessors of each module per State evaluated in the institutes notified by the DGT. Testing charges for evaluating the competencies of the assessors will be borne by the Assessing Bodies.

(1) Assessment process:

The assessment process aims to test and certify the competency of the persons through Assessing Bodies who seek certification of their skills acquired informally or the persons who have been trained at the registered TPs. The competency assessment of the candidate is being done by the Assessor Competency Evaluation (ACE) qualified assessor of the independent Assessing Bodies (AB) which is not involved in training delivery, to ensure an impartial assessment. ACE is conducted to evaluate the competency of the assessor. In the assessment process, identification of competency, ways to measure the competency and deciding on the type of evidence that has to be collected are the responsibility of the Assessing bodies whereas administering the assessment and collecting the evidence and reporting the results are the responsibility of the assessors. The assessment process consists of following components:

Theory Test:

- It must assess the knowledge which is essential for a person to do the job. Without this knowledge, the person will not be able to do the job.
- The questions shall be of objective type involving selection of correct response.
- The question paper should contain sketches/ diagrams/ photographs/ drawing to overcome the problems of reading comprehension.
- The test shall be of short duration.

Practical Test:

It shall be able to test:

- Manipulative skills to handle tools and equipment.
- Speed in doing work.
- Accuracy maintained
- Quality in workmanship.
- Sequence of performance.
- Economical use of material.
- Neatness & housekeeping.
- All the competencies prescribed in the course curriculum.

The Assessment Parameters adopted during assessment:

- Knowledge of equipment, limitation of use of tools and equipment, and methods & procedure.
- Understanding of functioning of equipment & tool, criteria to be used in selecting tools for given job, and the process of measurement.
- Skill in finishing to required measurement, handling measurement & calculations, handling tools and equipment with ease, finishing neatly.
- Abilities to take corrective steps, use correct work habits, take measurements, complete the job within stipulated time, and adopt safe

practices.

- Attitude towards the work, accurate & precise work and co-workers and supervisor.

(2) Duration of Test:

The duration of test vary according to the task. Theory test shall be of 1 hour duration and practical test for engineering trade shall be 6 to 8 hours minimum and non-engineering it shall be of 4 hours minimum. Assessing Bodies while preparing practical test shall ensure that candidate shall be tested on all the competencies prescribed in the course module.

The marking pattern and distribution of marks for the qualification are as under:

Terminal competency	Maximum marks
Application of knowledge	30
Care for tools & equipment	15
Economic use of materials	15
Safety consciousness	10
Speed	10
Accuracy	15
Quality of workmanship	20
Amount of work	15
No. of attempts	10
Attitude	10
Total maximum marks for Practical	150
Maximum marks for theory	50

(3) **Minimum pass mark:**

Minimum passing marks for Practical is 60%

Minimum pass marks for theory is 40%

(4) **Testing and certifications process for the course:**

Pre- Assessment

- Regional Directorate of Apprenticeship Training (RDAT) allot batches to the Assessing Bodies on rotational basis depending on the presence of assessing body in that region sector wise and the assessing body in coordination with Training Provider and assessor should confirm and schedule the assessment.
- The Assessing Body confirms the date of assessment in consultation with Training Provider and communicates to the RDAT/State.
- The Assessing Body forms a panel of ACE qualified assessors of high

repute and integrity, sector wise and location wise.

- The assessment of the candidates is done by the Assessing Bodies in designated Testing Centre (TC). The Testing Centre where the assessment is carried out and Testing Centre can be Training Center also. The Assessing Body select the TC based on the location, accessibility and the infrastructure facilities available for conducting the test.
- The testing center is approved by the RDAT incase of courses run by DGT,MSDE. Incase where the courses are run by the Sate Govt., TC is approved by State Govt.. Training conducted by other dept. at their accredited Training Centre, same training centre is designated as Testing centre.
- The Assessing Body provide details of selected TC along with skill areas in which assessment can be done at the TC, to the RDAT and respective States/UTs.
- The Assessing Bodies depute ACE qualified assessors for assessments whose details are furnished by Assessing Bodies to DGT in advance.
- Assessing Body has to communicate to the Testing Centre following:
 - Details of the candidates to appear for assessment in various MES courses.
 - Details of Assessors selected with their contact details.
 - Requirement of infrastructure, raw material etc.
 - Testing charges to be reimbursed to Testing Centre

Preparation of assessment tools and prerequisites:

- The assessment tools contain components for testing the knowledge, application of knowledge and demonstration of skill. The knowledge test is objective paper based test or short structured questions based. The application of knowledge is verified based on questioning or seeking response for a case. Demonstration of skill is verified based on practical demonstration by the candidate.
- The type of assessment tools to be used for assessment are to be prepared in advance by the assessing body in accordance to the guidelines as prescribed below:
 - Define the performance objective – This is based on the course objectives and competency in workplace as prescribed by MES curriculum. The written tests and practical tests assess all the competencies mentioned in course curriculum.
 - In case of practical test, the operations which are to be observed in case of process test (how a particular task is being carried out) are clearly mentioned and the specifications of the final product in case of product test (the task in itself).
 - List of tools, infrastructure, and equipment to carry out the assessment are prepared based on the test instruments that are planned to be used.
 - Written directions are given to the candidates before the task is attempted.
 - Scoring system, observations and rating is prepared for each competency which is going to be assessed.

Pre-assessment activities for Assessor at the Testing Centre

- Verification of student credentials: The assessor check the application form submitted by the candidates and verify the photo pasted on the forms with candidates who are taking assessment in accordance with checklist
- Verification of testing centre for adequate infrastructure, tools and equipment: The assessor verifies the availability of infrastructure, tools and equipment for carrying out both theory and practical assessments. The minimum requirement prescribed under the MES modules is used as benchmark.
- Attendance verification: The assessor checks the attendance register of candidates and instructors until the time biometric attendance system is put in place. Once the biometric attendance system is in place, the biometric attendance of assessors along with that of trainees/candidates has to be captured during the assessment at the start as well as end of theory and practical test.
- Attendance during assessment: The assessor takes the attendance of all the students who appear for assessment after the successful verification of the student credentials and before the start of the assessment. The assessor also provides his/her attendance during start and end of the practical and theory test.
- Verification of the documents related test carried out by Training Provider/ Testing Centre (TC) for candidates who were not able to produce document in support of having passed the qualification.

Assessment activities

- Before the start of assessment, read out the instructions to the students.
- The written test & practical test is for fixed duration as prescribed.
- It is ensured that individual attention is given to all the candidates during the practical test.
- The assessor takes photographs during the assessment process of all the students in the testing centre, the students during theory and practical tests, practical lab/workshop showing the equipment to be used for assessment, the assessor along with the students appearing for the assessment.

Post-assessment activities

- The assessor consolidates all the theory and practical test papers and ensures that all the mandatory information is filled. The total score for each student should be calculated and recorded in result sheet.
- The assessor send the attendance sheet, result sheet, answer papers by courier/post to the assessing body immediately after the completion of assessment
- Uploading outcome of the assessment and photos in portal by assessing body
- Assessing body upload the results within one week of the assessment date.
- Photos taken by the assessors during assessment are sent to respective RDATs through e-mail only. Non dispatch of photos of assessment to RDAT makes assessment void. Re-assessment of such batch is done by the Assessing Bodies on their own expenses.

	<ul style="list-style-type: none"> • Details of assessors are emailed to RDAT at the time of uploading the outcome of the assessment. Outcome of the assessment is not accepted in case details of assessors are not emailed to respective RDAT. • Maintaining assessment records • Publishing of results and Certificate issue • RDAT verifies the outcome of the assessment, details of assessors, photos and print and sign the certificates for successful candidates and send it to the respective candidates. In case of direct candidate's assessment, the Certificates are sent to the Assessing Body. • Certificates which will be issued carry photograph of the trainee, name of Training Provider, start date & end date of training and duration of training once the systems for the same are put in place. • The certificate is issues under the aegis of NCVT. All the communications are done through portal.
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Please attach most relevant and recent documents giving further information about assessment and/or RPL.

Give the titles and other relevant details of the document(s) here. Include page references showing where to find the relevant information.

ASSESSMENT EVIDENCE

Complete a grid for each component as listed in “Formal structure of the qualification” in the Summary.

NOTE: this grid can be replaced by any part of the qualification documentation which shows the same information – ie Learning Outcomes to be assessed, assessment criteria and the means of assessment.

24. Assessment evidences

Title of Component: Basic of Anatomy & Physiology

Outcomes to be assessed		Assessment criteria for the outcome
LO	Assessable Outcome Description	
DGT/MES/MED/N06: Understand the	AO1. Understand the General Anatomy:- Various Anatomical terms,	Theory Test

Basic Anatomy of the Human Body	Axis, Plane	
	AO2. Able to demonstrate of Human Skeleton : - Anatomical Position - Axis - Plane - Identification of various bones & joints - Demonstration of movement possible at various joints	Practical Test
DGT/MES/MED/N07: Acquire detailed knowledge of Human Body parts- Bone, Muscle, Nerve, Joints, Blood & Skin	AO1. Have knowledge of Bones: Composition & Function, Classifications, Various terms & markings on the bones	Theory Test
	AO2. Have knowledge of Muscle:- Structure of various types of muscle, Classifications, Isometric & Isotonic Muscle contraction	Theory Test
	AO3. Have knowledge of Nerve:- Structure of Peripheral nerve, Introduction of Brain & Spinal Cord	Theory Test
	AO4. Have knowledge of Joints: Definition, Classification, Structure of synovial Joints	Theory Test
	AO5. Have knowledge of Blood: Composition & Function, Blood Groups	Theory Test
	AO5. Able to identify and explain Characteristic features, side determination & applied anatomy of : (i) Upper Limb bones: - Scapula - Clavicle - Humerus - Radius - Ulna (ii) Lower Limb bones: - Hip - Femur - Tibia - Fibula	Practical Test
	AO6. Can demonstrate the Methods of B.P Measurement and Surface markings of important structure	Practical Test
DGT/MES/MED/N08: Understand the vital systems of Human Body:-Digestive,	AO1. Acquire detailed knowledge of Functions of the following Systems: - Digestive - Renal	Theory Test

Renal, Respiratory, Cardiovascular, Reproductive	- Respiratory - Cardiovascular - Reproductive	
DGT/MES/MED/N09: To have Knowledge of Microscopic operations	AO1. Able to perform Slide Preparation, Microscope operations and Sample collection	Practical Test
<p>Means of assessment 1</p> <p>The assessment comprise of</p> <ul style="list-style-type: none"> • Theory Examination • Practical assessment 		
<p>Pass/Fail</p> <p>The trainee is judged as pass in the qualification if minimum passing marks is obtained in each test i.e Theory and Practical.</p> <p>Minimum pass mark: Minimum passing marks for Practical is 60% Minimum pass marks for theory is 40%</p>		

NSQF QUALIFICATION FILE

SECTION 2

25. EVIDENCE OF LEVEL

OPTION A

Title/Name of qualification/component: Basic of Anatomy & Physiology			Level: 2
NSQF Domain	Outcomes of the Qualification/Component	How the job role relates to the NSQF level descriptors	NSQF Level
Process	The job holder is expected to have the knowledge and display expertise skills in the field of work like: <ul style="list-style-type: none"> – Basic anatomy of Human Body – Various vital organs and systems 	The job requires the limited range of activities routine and predictable like assisting doctors, monitoring vital parameters.	2
Professional knowledge	The job holder is required to have knowledge in the related field of work like: <ul style="list-style-type: none"> – Use of various medical tools required – Human body structure, Body systems 	The job holder understands the basic facts , process and materials involved in his job role like Human body structure, vital systems	2
Professional skill	The job holder is needs to know and understand : <ul style="list-style-type: none"> – Medication routines – Monitoring vital signs – Collect samples for tests – Assisting doctor/nurse in medication 	The job role only includes the limited service skill to assist the professionals, which is routine and repetitive in narrow range of application.	2
Core skill	The job holder is expected to be possess knowledge and skills regarding: <ul style="list-style-type: none"> – Efficiently communicate with patients for their needs – Maintain Hygine ans sanitation 	The Job holder will able to communicate with the patients as well as the medical practitioner to assist him.	2

NSQF QUALIFICATION FILE

Title/Name of qualification/component: Basic of Anatomy & Physiology		Level: 2	
NSQF Domain	Outcomes of the Qualification/Component	How the job role relates to the NSQF level descriptors	NSQF Level
Responsibility	The job holder works under the supervision of his superior, as per his directions. He is responsible for his designated task as and when given by the superior.	The job holder works under the supervision of his superiors and is responsible for his own limited work assigned.	2

NSQF QUALIFICATION FILE

SECTION 3 **EVIDENCE OF NEED**

26	<p>What evidence is there that the qualification is needed? What is the estimated uptake of this qualification and what is the basis of this estimate?</p> <p>Need of the Qualification: According to Executive Summary of Human Resource and Skill Requirements in Health Care sector (2013-17, 2017-22), Volume 14 by NSDC, With a diverse range of medical services, there are over 11 lakh allied health professionals in the country in the categories of nursing associates, sanitarians, medical assistants, medical equipment operators, optometrists, traditional and faith healers, physiotherapists, dieticians and dental assistants which is still short of the current demand. Although the expenditure on health has been on the rise, the per capita expenditure on health in India (INR 3844*) is significantly less than that in other developing countries (for example, it is INR 16988*in China) In the next few years, increasing penetration of insurance, changing demographics, increase in consumer awareness and rise in chronic and lifestyle-related diseases will result in increased healthcare spend.</p> <p>Industry Relevance: List of Trade Committee members is attached in curriculum</p> <p>Usage of the Qualification: Moreover about 22461 individuals have been assessed in this course under this scheme in FY 2015-16, 2016-17, which shows there is huge requirement of this skill in the Market. About 449 candidates have been trained across country under this Course under ELSTP scheme of Rajasthan till Feb 2017.</p> <p>Estimated uptake: Workforce requirements for the Healthcare sector is expected to grow from 35.9 lakh in 2013 to 74 lakh in 2022 which is more than double its existing workforce to meet the market demand. With shift in focus towards quality of service, particularly with the rising demand for tertiary and quaternary care, the industry requires specialized and highly skilled resources. (Executive Summary of Human Resource and Skill Requirements in Health Care sector (2013-17, 2017-22), Volume 14 by NSDC)</p>
27	<p>Recommendation from the concerned Line Ministry of the Government/Regulatory Body. To be supported by documentary evidences</p> <p>-NA-</p>

NSQF QUALIFICATION FILE

28	<p>What steps were taken to ensure that the qualification(s) does (do) not duplicate already existing or planned qualifications in the NSQF? Give justification for presenting a duplicate qualification</p> <p>The Qualification has been mapped with the National Qualification Register, maintained by NSDA to ensure the qualification does not duplicate.</p>
29	<p>What arrangements are in place to monitor and review the qualification(s)? What data will be used and at what point will the qualification(s) be revised or updated? Specify the review process here</p> <p>1) DGT interacts with training providers to gather feedback in implementation and updation of qualification. 2) Monitoring of results of assessments 3) Employer feedback will be sought post-placement 4) In a recent initiative, a Mentor Council (MC) for the relevant sector has been formed to review the curriculum of this qualification under the sector. 5) CSTARI, the research wing of DGT, reviews and updates the qualification, in consultation with industries and other stakeholders, on a regular basis.</p> <p>The qualification is reviewed after every 5 years for updation according to latest Technologies and practices.</p>

Please attach most relevant and recent documents giving further information about any of the topics above.

Give the titles and other relevant details of the document(s) here. Include page references showing where to find the relevant information.

SECTION 4

EVIDENCE OF PROGRESSION

30	<p>What steps have been taken in the design of this or other qualifications to ensure that there is a clear path to other qualifications in this sector?</p> <p><i>Show the career map here to reflect the clear progression</i></p> <p>An Individual has vertical pathway to promote to higher designations in an organisation. Can further undergo specialization course to excel to the higher post in jobs listed above or can start with up his/her own business.</p> <p>Progression chart: Specialized higher level course for a definite job role.</p>
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