

S-30th May, 2015 AC after Circulars from Circular No.1 & onwards++

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Copy forwarded with compliments to:-

- 1] The Director, C.V.E.T., Dr. Babasaheb Ambedkar Marathwada University Campus, Aurangabad.
- 2] The Principals, affiliated concerned colleges, Dr. Babasaheb Ambedkar Marathwada University

Copy to :-

- 1] The Controller of Examinations,
 - 2] The Director, [E-Suvidha Kendra], in-front of Registrar's Quarter, Dr. Babasaheb Ambedkar Marathwada University,
 - 3] The Superintendent, [B.Sc. Unit],
 - 4] The Superintendent, [B.C.S. Unit],
 - 5] The Programmer [Computer Unit-1] Examinations,
 - 6] The Programmer [Computer Unit-2] Examinations,
 - 7] The Record Keeper.
- Dr. Babasaheb Ambedkar Marathwada University.

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**Dr. Babasaheb Ambedkar Marathwada University,
Aurangabad.**

SYLLABUS OF

**B.Voc. Second Year
(Jewellery Design & Gemology)
Semester III & IV**

S-[F]NPW-02 June-2015-16 All Syllabus Science S.L.B.Voc. Jewellery Design & Gemology
IInd Yr. Sem. III & IV - 3 -

Semester – III							
General Education Components							
Sr. No.	GEM No.	GEM Title	No. of Credits	Scheme of Teaching	Scheme of Evaluation		
1	VOC 301	Linguistic Proficiency- III	4	4	50	4	50
2	VOC 302	Business Software Tools-I	4	4	50	4	50
3	VOC 303	Statistical Tools (Probability and Instrumentation)	4	4	50	4	50
Skill Development Components-							
5	GEM 241	Advanced Gemology	2	2	50	2	50
6	GEM 242	Synthetic Gemstone	2	2	50	2	50
7	GEM 243	Treatments on Gemstones	2	2	50	2	50
8	GEM 244	Techniques of Jewellery Making	2	2	50	2	50
9	GEM 245	Introduction to Design on Computer	2	2	50	2	50
10	GEM 246	Project III	2	2	50	2	100
11	GEM 247	Practical Based on Theory	4	4	100	4	100
12	GEM 248	Practical Based on Theory	4	4	100	4	100
Total			32	32			750
Total Credits = General Education Components + Skill Development Components (A/B/C)						12+20=32	

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IInd Yr. Sem. III & IV - 4 -

Semester – IV							
General Education Components							
Sr. No.	GEM No.	GEM Title	No. of Credits	Scheme of Teaching	Scheme of Evaluation		
1	VOC 401	Industrial Ethics and Safety management (for Industrial Automation and Automobile) / Ethical, Legal and Regulatory Aspects of tourism (for travel & tourism)	4	4	50	4	50
2	VOC 402	Business Software Tools- II	4	4	50	4	50
3	VOC 403	Fundamentals of Business and Accounting	4	4	50	4	50
Skill Development Components-							
5	GEM 249	Occurrence of Diamond And Their Types	2	2	50	2	50
6	GEM 250	Cutting And Manufacturing of Diamond & Organic Gem Material	2	2	50	2	50
7	GEM 251	Designing and Materials Used in Jewellery	2	2	50	2	50
8	GEM 252	Jewellery History and Culture in India	2	2	50	2	50
9	GEM 253	Detail Designing on Computer	2	2	50	2	50
10	GEM 254	Project IV	2	2	50	2	100
11	GEM 255	Practical Based on Theory	4	4	100	4	100
12	GEM 256	Practical Based on Theory	4	4	100	4	100
Total			32	32			750
Total Credits = General Education Components + Skill Development Components (A/B/C)						12+20=32	

<ul style="list-style-type: none"> • Kyropolous • Skull melting process, • Flux fusion process, • Hydrothermal process, • Gel growth, • Ceramic process <p>Identification of gemstones produced by these methods</p>	
<p>GEM-243: Treatments on Gemstones</p> <ul style="list-style-type: none"> • Bleaching, • Coating, • Spraying and Foiling, • Impregnation with oil, resin, • Fracture filling (colorless), • Filling of pores (Porous stones) – Colorless, Coloured impregnation (Dyeing), • Heat Treatment, • Diffusion Treatment, • Beryllium Diffusion, • High Pressure High Temperature HPHT treatment, • Graphitization, • Glass filling Lead, Bismuth, • Laser Drilling, • Heat treatment in ruby and sapphires with different kinds of residuals, Irradiation, disclosure of enhancements <p>Growth lines and colour zoning, twinning, types of inclusion, identification of natural and synthetic gemstones, colour zone diffusion and induced feathers/fingerprints, use of laboratory equipments and methods for identification.</p>	02
<p>GEM-244:Techniques of jewellery making</p> <ul style="list-style-type: none"> - Information Collection and Documentation - old books - local jeweller - jewellery catalogs - internet - jewellery pictures - scrap book - Document in word format <p>Creative Expression</p> <p>Principles of Design</p> <ul style="list-style-type: none"> - Line - Repetition - Rotation - Mirroring 	02

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<ul style="list-style-type: none"> - Graduation - Positive and Negative - Center Point History and Cultural Context Study of Jewellery History - World Costume jewellery study - from civilization Indus valley, African, Egyptian, Greek, Roman, Chinese and Japanese materials available - designs - occasion based, symbolical Precious jewellery study - from period Renaissance, Baroque, Art Nouveau, Art Deco materials available - designs - occasion based, symbolical, trading - special craftsmanship Aesthetic Value Designing with Orthographic and Perspective I - Wedding bands in metal - Bypass rings - Religious pendants - cross, aum - Plain bracelets using metal GEM-245: Introduction to Design on computer - about corel draw - need - uses - understanding of tools used - creating and manipulating text - selecting and transforming objects -shaping objects -filling and fuling objects - viewing, zooming and ordering - combining/grouping, breaking apart/separating, ungrouping - converting to curves - scanning - weld, intersection and trim - aligning, copying, pasting and cloning - blending and contouring - lens, perspective and power clip - fitting text to a path - colour adjustment and bitmap effects - page setup and printing - uses of corel draw in jewellery industry 	02
<ul style="list-style-type: none"> GEM-246: Project III Advance Manufacturing -Technique with metal 	02

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<ul style="list-style-type: none"> - stamping with die - making earrings, necklace - collet making and setting - prong and baze for rounds, princess, marquise, pear stones -making rings, earrings - introduction to casting - Enhancing look by - engraving - enamelling - hot - filigree - granulation - Finishing and Polishing - pickling - buffing - ultrasonic cleaning - magnetic polisher - rhodium polish - sandblasting - texturing with different burs -Clasps and findings 	
<p>Life-skills education</p> <p>Creative Writing for Jewellery</p> <ul style="list-style-type: none"> -Art of Writing - Understanding the Jewellery Terminology - underline the terms used/related to jewellery from the collected articles - Write 300 words article on given themes 	04
<p>GEM 247- Practical Based on Theory</p>	04
<p>GEM 248- Practical Based on Theory</p>	
<p>Semester IV</p>	
<p>GEM-249: Occurrence of Diamond and their types</p> <p>DIAMOND</p> <ul style="list-style-type: none"> • Type of Rocks and Diamonds found in them • Diamond Occurrence • Types of Mining • Alluvial Deposits / Marine Deposits • Extraction of Diamonds <p>Geological occurrence of Diamonds, Diamond deposits, Kimberlite and Lamproites pipe deposits, Survey methods of diamond deposits, Mining</p>	02

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<p>techniques of diamond deposits, History of diamond and diamond mining, Blood diamonds and conflict diamonds, Kimberly process certification</p> <p>Various countries in which diamonds are mined, Famous Diamonds</p> <p>DIAMONDS AND THEIR INTERNAL STRUCTURES</p> <ul style="list-style-type: none"> • Crystal Forms • Growth Features • Crystallography • Cleaving • Surface Markings • Rough Diamonds 	
<p>GEM-250: CUTTING AND MANUFACTURING OF DIAMONDS AND ORGANIC GEM MATERIALS</p> <p>Steps included in cutting and polishing of diamonds (planning and making, sawing, bruiting, faceting of cable, faceting of crown, faceting of pavilion). Instruments used in cutting and polishing of diamond processing. Manual method of planning and marking, Computerized or automatic method for planning marking and diamond sawing.</p> <p>History of Pearls and Pearl culture, taxonomy and distribution, ecology and biology, culture of pearl oysters, pearl production, marketing of pearls. Fresh water pearls, marine Pearls Corals, Amber, Jet, Ivory, tortoise shell</p>	02
<p>GEM-251: Designing and Materials used in Jewellery</p> <p>Knowing of Materials used in jewellery Information Collection from Local Market and Documentation</p> <ul style="list-style-type: none"> - platinum, gold, silver, brass, copper, tin, aluminium, lead - availability in form of sheet, wire, tube and granulation - stones - real and synthetics - purity and pricing - Document in word format <p>Creative Expression Designing using Principles of Design</p> <ul style="list-style-type: none"> - Creating pieces using Methods of Manipulation - Rendering of pieces 	02

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<ul style="list-style-type: none"> - Mounting and Presentation - Designing for costume/fashion jewellery market 	
<p>GEM-252: Jewellery History and its Cultural in India Study of Jewellery History - India</p> <ul style="list-style-type: none"> -Precious jewellery study - from Indian history from Mauryan, Gandhar, Mughal periods - materials available - sculpture, paintings - designs - occasion based, symbolical, - trading during the era - special craftsmanship - jewellery hubs - Costume jewellery study - from all aspects/occasion - dances, festivals, harvesting - materials available - designs - occasion based, symbolical, - special craftsmanship <p>Aesthetic Value Designing with Orthographic and Perspective II</p> <ul style="list-style-type: none"> -Rings with diamonds and colour stones - Pendants with diamonds and colour stones - Necklace using large stones 	02
<p>GEM-253: Detail Designing on computer Coral draw</p> <ul style="list-style-type: none"> - Designing bigger pieces using principles of design - Stone drawing and rendering - Designing piece with colour stones/diamonds - Shadows and shadings 	02
<p>GEM-254: Project IV Jewellery Making</p> <ul style="list-style-type: none"> - Stone setting - prong collet making and setting for different stones - emerald cut, heart, baguette taper - bezel collet making and setting for oval, marquise, pearl - pave with rounds - Tension setting with rounds and princess - channel setting for rounds - making caps for different shapes of pearl and broilers - Creating smaller pieces using above techniques - Quality check for jewellery <p>Life-skills education</p>	02

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Ethics in industry - Visit jewellery units/ showrooms - Collect information on - related metals - manufacturing - secure employment - respect workers freedom of association, - reducing energy and water - toxic use - issue of child labour - best practices used in the unit - re-use, re-cycling and zero waste - Jewellery Communication - promotion/publicity of jewellery collection through magazines	04
GEM 247- Practical Based on Theory	04
GEM 248- Practical Based on Theory	04

Question Paper Pattern

- Note: 1 All question carry equal marks
 2 Question No 1 is compulsory
 3 Attempt any four form questions no 2 To 7

Time: 2 Hours

Marks: 50

Q. No.	Format	Marks
1	Multiple Choice/Fill in the blank/Match the pair/ one line answer. 1) 2) . 10)	1 x 10 = 10
2	Descriptive	1 x 10 = 10

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3	Descriptive	1 x 10 =10
4	Descriptive	1 x 10 =10
5	Write short notes on any TWO (a) (b) (c)	2 x 5 = 10
6	Write short notes on any TWO (a) (b)	
7	Descriptive	
	Total	50

