BOARD OF TECHNICAL EDUCATION
PORVORIM-GOA
November, 2025 Examinations

Programme: **Garment Technology**

Subject: **Crafts of India (GA513)**

Time Duration: **3 Hrs.** Max. Marks: **75**

Instructions: 1) All questions are compulsory.
2) Figures to the right indicate full marks.
3) Assume suitable additional data if required.

Q.No.1. Answer the following Questions: 1x15=15
  a) Why is Indian folk art an important part of the nation's culture?
  b) Name four ancient tribal crafts of India.
  c) Explain the Jhuker pottery of India.
  d) Describe the use of the Potter's Wheel.
  e) Why is Uttar Pradesh known for its black pottery?
  f) Explain the term 'Kagazi Mohallas".
  g) State four properties of metals used in ancient metal crafts.
  h) What is the silver filigree work of Odisha called and why?
  i) Explain the craft of Meenakari.
  j) What is Jadau work? Explain.
  k) Which fiber is called the 'golden fiber' and why?
  l) Name four Indian states that produce bamboo.
  m) Describe a Rug.
  n) What do you understand by the term "Jamawar".
  o) Name four promising areas in the craft sector in India.

Q.No.2. Write short note on any four: 4 x 3 = 12
  a) What do you understand by the term "Handicraft"? Explain.
  b) Write the role of the craft community in India.
  c) Give a brief about the history of Indian crafts.
  d) Explain the terms artisan, craftwork and artifact.
  e) What are the various classifications in the craft sector? Describe them.

Q.No.3. Answer any three of the following Questions: 3 x 4 = 12
  a) State the various ways in which clay can be used in preparation of pottery.
  b) Explain the wheel turned pottery and the hand modeling techniques used in clay crafts.
  c) Write short notes on: Coiling technique and slip casting technique in clay formation
  d) What do you know about the clay crafts of central India and name the famous items produced here.
  e) Explain the process followed in bone crafting from ancient to modern times in India.

Q.No.4. Answer any two of the following Questions: 2 x 6 = 12
  a) Give detailed report on the various metal crafts seen in ancient India. Explain their uses and importance.
  b) Explain details about the following metal crafts: Tanjore metal plate and Bidri metal craft
  c) Name the various traditional types of jewellery worn in the states of: Gujarat and Maharashtra.
  Use illustration wherever necessary.
  d) Write a description of the jewellery worn in modern day India compared to the jewellery worn in ancient India.

BOARD OF TECHNICAL EDUCATION
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Programme: **Garment Technology**

Subject: **Industrial Garment Manufacture (GA304)**

Time Duration: **3 Hrs.**   Max. Marks: **75**

Instructions: 1) All questions are compulsory.
2) Figures to the right indicate full marks.
3) Assume suitable additional data if required.

Q.No.1. Answer any ten of the following Questions: 10x1.5=15
   a) State main difference between knit and nonwoven fabric.
   b) Define job-work unit with an example.
   c) Define 6 Sigma.
   d) Give two objectives of SITRA.
   e) State three main duties of Purchase Manager.
   f) List out the equipments required for sampling section.
   g) Elaborate section handling.
   h) Define working of side bed machine.
   i) Define acid wash and its uses in brief.
   j) How do you define product pricing?
   k) Draw symbols for Tumble dry and Bleach iron.

Q.No.2. Write short note on any three: 3 x 4 = 12
   a) Industrial garments
   b) Woven garments
   c) Old age garments
   d) Motion study
   e) Laser cutting machine
   f) Pressing machines

Q.No.3. Answer any two of the following Questions: 2 x 6 = 12
   a) Discuss in detail job-work unit functions and state its advantages.
   b) Explain briefly stage, internal and external inspection.
   c) Name personnel required in purchase section and discuss their duties.

Q.No.4. Write short note on any three: 3 x 4 = 12
   a) Cutting section of garment industry
   b) Stepped spreading
   c) Fusing machines
   d) Pattern master
   e) Packing materials

Q.No.5. Answer any two of the following Questions: 2 x 6 = 12
   a) Discuss in detail straight line conveyor belt.
   b) Discuss in detail UPS system with its advantages and disadvantages.
   c) Prepare a yearly calendar for a fashion show to be conducted by a design house.

Q.No.6. Answer any three of the following Questions: 3 x 4 = 12
   a) Discuss in detail washing cycles for denim garments.
   b) Prepare a specification sheet for ladies high waist yoked trouser.
   c) How garment defects are classified, discuss.
   d) Discuss method of garment costing.

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BOARD OF TECHNICAL EDUCATION
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Programme: **Common**

Subject: **Environmental Studies (GC203)**

Time Duration: **3 Hrs.**　　　　　　　　　　Max. Marks: **75**

Instructions: 1) All questions are compulsory.
　　　　　　　　 2) Figures to the right indicate full marks.
　　　　　　　　 3) Assume suitable additional data if required.

Q.No.1. Answer any five of the following Questions:　　　　**5 x 3 = 15**
- **a)** What is Ecological Footprint?
- **b)** Name any six Biogeographical zones of India.
- **c)** What is land degradation? List the methods of control of land degradation.
- **d)** How is high activity radioactive waste disposed?
- **e)** What are secondary air pollutants? Give example.
- **f)** Explain the role of decomposers in an ecosystem.
- **g)** State any six rules you will follows as not to violate Motor Vehicle Act.

Q.No.2. Answer any two of the following Questions:　　　　**2 x 6 = 12**
- **a)** Write a note on Environment Impact Assessment.
- **b)** Discuss the environmental ethics to be developed as true earth citizen.
- **c)** State any six Human Rights.

Q.No.3. Answer any two of the following Questions:　　　　**2 x 6 = 12**
- **a)** Explain primary ecological succession.
- **b)** Write a note on In-Situ or Ex-Situ method of conservation of biodiversity.
- **c)** Describe: i) Desert Ecosystem ii) Ocean Ecosystem

Q.No.4. Answer any two of the following Questions:　　　　**2 x 6 = 12**
- **a)** Discuss the effect of excessive use of synthetic pesticides in modern agriculture on environment.
- **b)** Discuss any six drawbacks of construction of dams.
- **c)** What are the causes of deforestation? Explains the steps taken for forest management.

Q.No.5. Answer any two of the following Questions:　　　　**2 x 6 = 12**
- **a)** What is Green House effect and Global Warming? Explain its effects.
- **b)** Discuss how pathogens and heavy metals in polluted water affect human health.
- **c)** Explain the method of composting of wet waste and methods of waste utilization with examples.

Q.No.6. Answer any two of the following Questions:　　　　**2 x 6 = 12**
- **a)** Discuss the effects of noise pollution on human health. What precautions will you take to protect yourself from noise pollution?
- **b)** Discuss the short term and long term effects of marine water pollution due to oil spills.
- **c)** Explain the role of Information Technology in environment.

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BOARD OF TECHNICAL EDUCATION
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Programme: **Garment Technology**

Subject: **Textile Fibres (GA104)**

Time Duration: **3 Hrs.**   Max. Marks: **75**

Instructions: 1) All questions are compulsory.
2) Figures to the right indicate full marks.
3) Assume suitable additional data if required.

Q.No.1. Answer the following Questions: 15x1=15
a) Name the three sources from where the natural fibers are obtained.
b) What are cotton blends?
c) Name any two mineral based fibers.
d) What is pulled wool?
e) In which countries is Jute mainly grown?
f) What products are made from Angora rabbit hair?
g) What are cotton linters?
h) Name two trademarks of polyester fibers.
i) What is the effect of heat on acetate fibers?
j) Draw the microscopic view of cotton.
k) What is the odor of cotton on burning?
l) What are grey goods?
m) What finish is given to cotton to make it look like silk?
n) Name a rapped fabric.
o) What do you mean by a temporary finish?

Q.No.2. Answer any three of the following Questions: 3 x 4 = 12
a) Draw the classification chart of cellulosic fibers with examples and write three characteristics of cotton fiber.
b) What are the popular features of synthetic fibers?
c) Draw the classification table of fibers based on origin. (source)
d) Define textile fibers and explain natural fibers.

Q.No.3. Answer any three of the following Questions: 3 x 4 = 12
a) Explain the cultivation of cotton fibers.
b) Write four differences between wool and cotton fiber.
c) Discuss the properties of wool in terms of: i) Strength or durability ii) Warmth iii) Absorbency
d) Draw the life cycle chart of silk worm and explain the effect of heat on silk.

Q.No.4. Answer any three of the following Questions: 3 x 4 = 12
a) Draw the flowchart of viscose rayon manufacturing process and explain the Steeping process.
b) What is Melt spinning?
c) Explain the effect of heat, mildew and dyes on acrylic fibers.
d) Why is Nylon fiber used in the making of fishing nets or ropes?

Q.No.5. Answer any three of the following Questions: 3 x 4 = 12
a) Describe three tests used to differentiate cotton and wool.
b) What is a feeling test? What are the limitations of feeling test?
c) Draw the microscopic view of wool and explain.
d) Explain the test used to distinguish silk from wool.

BOARD OF TECHNICAL EDUCATION
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Programme: **Garment Technology**

Subject: **Textile Construction (GA302)**

Time Duration: **3 Hrs.**
Max. Marks: **75**

Instructions: 1) All questions are compulsory.
2) Figures to the right indicate full marks.
3) Assume suitable additional data if required.

Q.No.1. Answer any ten of the following Questions: 10x1.5=15
- a) Name different methods of spinning yarns.
- b) What do you understand by fineness of yarn?
- c) Name any three plain weave fabrics.
- d) Define dobby attachment.
- e) What is the function of reed and shuttle in loom?
- f) What are end uses of honey comb weave fabrics?
- g) Draw a neat diagram of Rib knit.
- h) Name different types of knitting machine needles.
- i) How do you explain thermal bonding?
- j) Define Eco friendly textiles.
- k) What type of fabrics is used as defence textiles?

Q.No.2. Answer any three of the following Questions: 3 x 4 = 12
- a) Draw a flow chart of blending process of yarn formation using cotton and polyester yarn.
- b) What are the advantages of ring spun yarn over open end spun yarn?
- c) Write short note on yarn twists.
- d) Explain novelty yarns.

Q.No.3. Answer the following Question:
- a) Construct any four of the following weaves, along with draft: 4 x 2 = 8
i)4x2 right hand twill ii)7 end satin weave iii)2/3 weft rib irregular wave iv)Herringbone weave v)Hulk –a – back weave
- b) Write short note on Khadi India .   (04)

Q.No.4. Answer any three of the following Questions: 3 x 4 = 12
- a) Construct honeycomb weave and list four uses of same woven fabric.
- b) Write short note on Nano textiles.
- c) Explain tucked-in-selvedge and leno selvedge and uses of selvedges.
- d) Explain EPI and PPI with examples.

Q.No.5. Write short note on any four: 4 x 3 = 12
- a) Raschel knit fabrics
- b) Single jersy knit fabrics
- c) Define port and knit stitch
- d) Properties of knit fabrics
- e) Advantages of knit fabrics over woven fabrics

Q.No.6. Answer any four of the following Questions: 4 x 3 = 12
- a) Thermal bonding of nonwoven fabrics
- b) Air-laid web formation
- c) Finishing process of nonwoven fabrics
- d) Spun-laid web formation
- e) Continuous fusing systems
- f) Recycled textiles

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