

Master's Degree Examination – November 2017
Semester : III

Class : II PG
Major : Bio Textiles

Time : 3 Hours
Max. Marks : 60

INTERDISCIPLINARY COURSE - II

12MBXI02 Textile Chemistry

Part – A

Choose the correct answer 10 x ½ = 5

1. Choose the fibre which gives burning hair smell when burnt _____
a) cotton b) jute c) wool d) nylon
2. Select the fibre which dissolves in hot 10% sodium hydroxide solution _____
a) wool b) cotton c) jute d) modal
3. Select the process which removes the natural impurities of fat/wax from cotton _____
a) bleaching b) desizing c) mercerizing d) scouring
4. Which among the following is considered universal bleaching agent?
a) calcium hypochlorite b) hydrogen peroxide c) sodium chlorite
d) sodium hypochlorite
5. Choose the printing technique which does not require any device/machinery _____
a) Screen printing b) roller printing c) tie & dye d) rotary printing
6. The dye used in the printing sequence of print-dry-cure is called _____
a) pigment printing b) reactive printing c) vat printing d) sulphur printing
7. The process used for the removal of short / protruding fibres is _____
a) desizing b) pilling c) weighting d) singeing
8. The process which prohibits the entry of both air and water into the fabric is _____
a) moisture improvement b) water proof c) absorbency improvement d) water repellent
9. The textile unit which generates more waste water generation is _____
a) knitting unit b) sizing unit c) weaving unit d) dyeing unit
10. Select the process which comes under the primary waste water treatment stage
a) RO treatment b) screening c) trickling filtration d) ion-exchange

Part – B

Answer the following 5 x 4= 20
Answer should not exceed 200 words or One page

- 11a. Give the classification of textile fibres.
(or)
- 11b. How is cotton identified by the chemical tests technique?
- 12a. Discuss the process of scouring on cotton fibrous material.
(or)
- 12b. With example, write about the importance of pH and temperature in the dyeing process.
- 13a. Write the advantages and disadvantages of stencil printing.
(or)
- 13b. What are the drawbacks associated with rotary printing operation?
- 14a. Discuss about the necessity of singeing operation.
(or)
- 14b. Write about the concept of moth and mildew finishing processes.
- 15a. How do you characterize the waste water generated from sizing and desizing units?
(or)
- 15b. List out the important names of primary waste water treatments. Write their role of operation in that treatments.

Part – C

Answer the following 5 x 7 = 35
Answer should not exceed 600 words or Three pages

- 16a. Explain, method of identifying netused fibers using burning test and feeling test,
(or)
- 16b. Bring out the analytical results for nylon and polyester fibrous materials by microscopic and chemical analysis technique.
- 17a. Give a detailed account on the mechanism of the bleaching process on cotton fibrous materials using hydrogen peroxide.
(or)
- 17b. With example, elaborate the suitable package dyeing process for the cotton fibrous materials.
- 18a. Explain the sequence of steps involved in block printing.
(or)
- 18b. Give a detailed account on the process involved in roller printing operation.
- 19a. Describe in detail about the sanforizing process.
(or)
- 19b. Elaborate an nano finishes in textile materials.
- 20a. Explain about the trickling filtration and activated sludge processes adapted in the secondary stage of waste water treatment.
(or)
- 20b. Explain the innovative aspects attached with the bio remediation process of waste water treatment.
