1. a. When calculating sample size in a clinical trial, what is meant by:
   i. Power of study
   ii. Level of significance
   b. What is meant by doing a study according to good clinical practice guidelines?
   c. What is meant by strength of evidence and quality of evidence in a clinical trial?

2. a. Discuss the structure of desmosome.
b. What are the immunological components of a desmosome?
c. What is the role of desmosomes in blistering diseases?

3. a. What is an epidermal-melanin unit?
b. Discuss the structure of melanocyte under the following heads:
   i) Light microscopy appearance
   ii) Electron microscopy appearance
   iii) Special techniques to study melanocytes

4. a. Discuss the characteristics of autosomal recessive genodermatosis.
b. Describe briefly techniques used to diagnose genodermatosis antenatally.
c. Discuss genetic mosaicism.

5. a. Discuss the laboratory investigations done to evaluate a child with mechanico-bullous disorders.
b. Discuss the laboratory evaluations done to evaluate an adult with immuno-bullous disorders.

6. A 55 years old farmer presents with a suspected fungal infection on his foot. Discuss the evaluation of such a patient under the following headings:
a. Clues in history
b. Clues in morphology of lesions
c. Sample collection
d. Direct microscopy
e. Histopathology
f. Other investigations
7. Discuss the pathogenesis of psoriasis under the following:
   a. Role of genetic factors
   b. Role of T-cells
   c. Role of dendritic cells
   d. Role of cytokines

8. a. Enumerate the resident flora of skin.
   b. Outline the methods of sampling normal flora.
   c. What is the function of normal flora on the skin?
   d. Discuss one disease caused by resident flora.

9. a. Enumerate the components of solar rays.
   b. Discuss the role of UVA, UVB in health.
   c. Discuss the role of UVA, UVB in:
      i) Ageing
      ii) Pigmentation
      iii) Carcinogenesis

10. Discuss the value of the following tests in evaluating a patient of allergy:
    a. Patch test
    b. Photo-patch test
    c. Skin prick test
    d. RAST
DERMATOLOGY AND VENEREOLOGY

PAPER - II

Time : 3 hours
Max. Marks : 100

Attempt all questions in order.
Each question carries 10 marks.

1. a. What are the clinical and histopathological differences between lentigines and freckles? Enumerate four syndromes associated with lentigines.
   b. Enumerate four syndromes associated with café-au-lait macules.
   c. What are the clinical features of Peutz Jegher's syndrome?

2. a. Classify dermatosis of pregnancy.
   b. Discuss the clinical presentation of pemphigoid gestationis.
   c. How will you manage an 8 month pregnant woman with pemphigoid gestationis?

3. a. Discuss the differential diagnosis of skin lesions in a seborrhoeic distribution.
   b. Discuss the differential diagnosis of skin lesions on pressure points.

4. Tabulate the differences between:
   a. Variegate porphyria and porphyria cutanea tarda
   b. Palmoplantar psoriasis and hyperkeratotic eczema.

5. a. What are the criteria for making a diagnosis of tuberculides?
   b. Discuss papulonecrotic tuberculide under the following heads:
      i) Clinical features
      ii) Biopsy findings
      iii) Treatment

6. Discuss the use of the following drugs:
   a. Rituzimab in pemphigus
   b. Dapsone in lichen planus
   c. Steroids in toxic epidermal necrolysis
   d. Acyclovir in erythema multiforme
   e. Thalidomide in Behcet's syndrome

7. a. Classify alopecia
   b. Discuss medical management of different types of cicatricial alopecia.
   c. Discuss the surgical management of cicatricial alopecia.

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P.T.O.
8. A 38 year old female patient needs to be prescribed steroids for several months.
   a. What advice would you give her about using the drug?  
   b. How would you monitor her?  
   c. What additional drugs would need to be given to her to counter some of the side effects and why? 

   b. What is the geographic distribution of leishmaniasis in India?  
   c. How will you manage a patient of post Kala azar dermal leishmaniasis? 

10. Discuss the management of a 19 year old female patient with hirsutism.
1. a. Enumerate the bullous disorders associated with internal malignancies.  
   b. Discuss the clinical manifestations of pancreatic tumours as seen on the skin.  
   c. Discuss clinical manifestations of secondaries of malignant tumours seen on the skin.  

2. Describe the cutaneous manifestations of:  
   a. Hypothyroidism  
   b. Addison's disease  
   c. Hyperthyroidism  
   d. Vitamin C deficiency  
   e. Riboflavin deficiency  

3. a. Classify xanthomas.  
   b. How would you evaluate a patient who presents with multiple tuberous xanthomas? Discuss under the following heads:  
      i) Clinical features including history  
      ii) Laboratory evaluation  
      iii) Systemic features  

4. a. How would you monitor a patient of ichthyosis on oral retinoids?  
   b. How would you monitor a patient of pustular psoriasis on methotrexate?  

5. a. Discuss the extra-cutaneous manifestations of a patient with systemic sclerosis.  

6. b. Define mastocytosis  
   c. Classify mastocytosis  
   d. What are the criteria for diagnosis of systemic mastocytosis?  
   e. Discuss the histopathology of one clinical type of mastocytosis.  

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P.T.O.
7. a. Discuss the metabolism of zinc in the human body.
   b. Enumerate the causes of zinc deficiency.
   c. Discuss the clinical features and treatment of acrodermatitis enteropathica.

8. Discuss the management of a 2 year old child who presents with recurrent skin and chest infections. An elder sibling of the child also had similar severe complaints and died of pneumonia. Discuss your answer under the following heads:
   a. History
   b. Examination
   c. Lab investigations, if all facilities are available.

9. a. Discuss the staging of mycosis fungoides.
   b. Discuss the staging of malignant melanoma.

10. Discuss the management of:
    a. Acute generalized exanthematous pustulosis
    b. Fixed drug eruption
    c. Steroid acne
    d. Cyclosporine induced hypertrichosis
    e. Minocycline induced pigmentation.
DERMATOLOGY AND VENEREOLOGY

PAPER- IV

Time : 3 hours
Max. Marks : 100

Attempt all questions in order.
Each question carries 10 marks.

1. Discuss the manifestations of leprosy in
   a. Kidney
   b. Gonads
   c. Eye

2. Tabulate the differences between borderline tuberculoid leprosy and borderline lepromatous leprosy under the following headings:
   a. Morphology and character of lesions.
   b. Nerve involvement
   c. Lepromin test
   d. Histopathology

3. Discuss the following aspects of leprosy elimination program:
   a. Elimination
   b. Eradication
   c. New case detection rate.
   d. Disability in leprosy
   e. New parameters used.

4. Discuss the management of leprosy in the following situations:
   a. Pregnancy
   b. Type 1 reaction
   c. Type 2 reaction

5. Discuss the pathogenesis of nerve damage in leprosy.

6. A 19 year old sexually active male presents with a laboratory report of HIV positive. How would you:
   a. Clinically evaluate the patient
   b. Counsel him
   c. Investigate him

7. Discuss the serological tests available for diagnosis of:
   a. Syphilis
   b. Chlamydia trachomatis infection
   c. Herpes genitalis

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P.T.O.
8. a. Classify anogenital warts.  
b. Discuss the management of anogenital warts in a pregnant woman.  
c. Discuss the complications of anogenital warts in a male.

9. a. Discuss the recommendation of partner management in:  
   i) Syphilis.  
   ii) Urethral discharge.  
   iii) Vaginal discharge  
b. Discuss the recommendations for presumptive management of sexually transmitted infections.

10. Tabulate the differences between:  
a. Ulcers of Chancre and chancroid  
b. Ulcers of dwarf chancroid and herpes genitalis.  
c. Bubo of chancroid and lymphogranuloma venereum.

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