

INI CET Dermatology

Sample Paper – 6

Duration: 14 Minutes

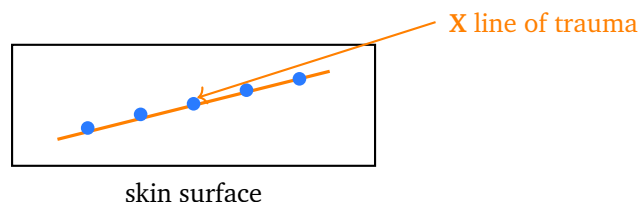
Maximum Marks: 15

Instructions

- This paper contains **15** Multiple Choice Questions (Single Best Response), modelled on the Dermatology and Venereology content of **INI CET** (Institutes of National Importance Combined Entrance Test) conducted by AIIMS New Delhi.
- The **15-question** length matches the number of Dermatology items you actually meet in the real 200-question paper.
- Each correct answer carries **+1 mark**. There is **negative marking of one-third (0.33) mark** for every incorrect answer; unattempted questions carry no penalty.
- Every question has **exactly one best answer**. Choose the single most appropriate option.
- Attempt this practice paper in one timed sitting of about **14 minutes**, the pace the real computer-based test demands.

Papulosquamous and Eczematous Disorders

Q1. New psoriatic plaques appearing in a straight line along a fresh scratch (traced by the marker X below), also seen in lichen planus and vitiligo, is called the:



- (A) Koebner (isomorphic) phenomenon
- (B) Auspitz sign
- (C) Nikolsky sign



(D) Darier sign

Q2. A child presents with shiny, glazed, fissured red skin over the weight-bearing forefoot and toe pads, sparing the toe clefts, worse in trainers and sweaty socks. This friction-and-occlusion eczema (juvenile plantar dermatosis) is a form of:

- (A) Tinea pedis
- (B) Atopic dermatitis of the sole
- (C) Irritant contact dermatitis
- (D) Allergic contact dermatitis to rubber

Q3. Persistent, asymptomatic, ill-defined scaly patches on the trunk and buttocks of an adult, some larger than 5 cm with a 'digitate' shape, that may over years evolve into an early cutaneous T-cell lymphoma, describe:

- (A) Pityriasis rosea
- (B) Parapsoriasis
- (C) Nummular eczema
- (D) Guttate psoriasis

Cutaneous Infections

Q4. A moist, macerated, beefy-red rash in the submammary and groin folds of an obese diabetic patient, fringed by small 'satellite' pustules just beyond the main plaque, is most likely:

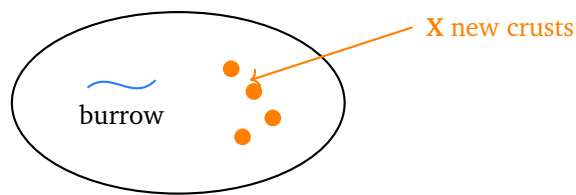
- (A) Candidal intertrigo
- (B) Tinea cruris
- (C) Erythrasma
- (D) Flexural psoriasis

Q5. A slowly enlarging painless ulcer with a raised border on the cheek of a traveller returned from an endemic desert area, transmitted by a sandfly bite and showing amastigotes inside macrophages on a slit-skin smear, is:



- (A) Cutaneous tuberculosis
- (B) Cutaneous leishmaniasis (oriental sore)
- (C) Sporotrichosis
- (D) Basal cell carcinoma

Q6. A child with classic scabies develops, over the itchy burrowed areas, new honey-coloured crusts and pustules that have grown since scratching. The added feature (marked **X**) most likely represents:



- (A) Crusted (Norwegian) scabies
- (B) An id (autosensitisation) reaction
- (C) Contact dermatitis to permethrin
- (D) Secondary impetiginisation of scabies

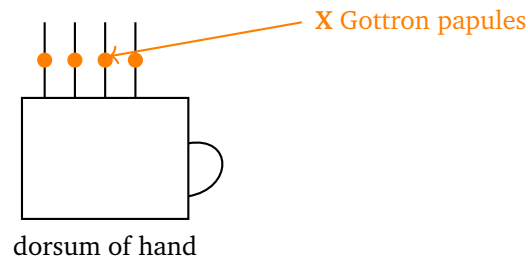
Vesiculobullous and Autoimmune Disorders

Q7. A patient with known pemphigus develops heaped-up, vegetating, warty granulation-tissue plaques studded with pustules in the axillae and groin (the intertriginous variant with a positive Nikolsky sign). This is:

- (A) Bullous pemphigoid
- (B) Dermatitis herpetiformis
- (C) Hailey-Hailey disease
- (D) Pemphigus vegetans

Q8. An adult has a violaceous rash over the eyelids and scaly papules over the knuckles (marked **X** on the hand below), with proximal muscle weakness. This picture (heliotrope rash and Gottron papules) mandates an internal malignancy screen and indicates:





- (A) Systemic lupus erythematosus
- (B) Dermatomyositis
- (C) Psoriatic arthritis
- (D) Scleroderma

Infestations, Sexually Transmitted Infections and Leprosy

- Q9.** A young adult reports itching of the pubic region, with tiny crab-shaped lice clinging to the hair bases and slate-grey to bluish macules (maculae ceruleae) on the lower abdomen and thighs. This is:
- (A) Scabies
 - (B) Tinea cruris
 - (C) Pediculosis pubis (crab lice)
 - (D) Molluscum contagiosum
- Q10.** A slowly progressive, painless, beefy-red genital ulcer that bleeds readily on touch, with intracytoplasmic Donovan bodies seen on a Giemsa-stained tissue smear, is:
- (A) Granuloma inguinale (donovanosis)
 - (B) Chancroid
 - (C) Primary syphilis
 - (D) Lymphogranuloma venereum
- Q11.** A patient on multibacillary leprosy treatment develops crops of tender, red subcutaneous nodules with fever and malaise (a type 2 lepra reaction



due to immune-complex deposition), classically eased by thalidomide. This is:

- (A) A reversal (type 1) reaction
- (B) Erythema multiforme
- (C) Erythema induratum
- (D) Erythema nodosum leprosum

Pigmentary, Hair and Drug Reactions

Q12. A child has six flat, uniformly light-brown (cafe-au-lait) macules each over 5 mm, together with freckling in the axillae and groin. This combination points to:

- (A) Neurofibromatosis type 1
- (B) Vitiligo
- (C) Tuberous sclerosis
- (D) McCune-Albright syndrome

Q13. On examining a bald patch, the reliable sign that the hair loss is *scarring* (cicatricial) rather than non-scarring alopecia is:

- (A) Presence of exclamation-mark hairs
- (B) Loss of visible follicular openings over the patch
- (C) A positive hair-pull test at the margin
- (D) Diffuse thinning with preserved follicles

Skin Tumours and Dermatological Emergencies

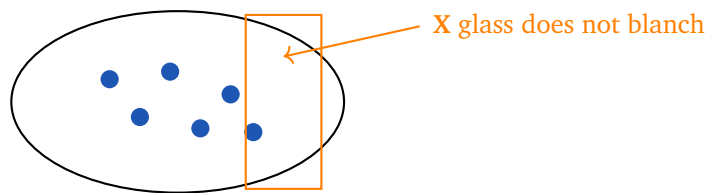
Q14. An older adult has years of fixed, scaly erythematous patches evolving into infiltrated plaques with irregular outlines, showing epidermotropic atypical T-cells with Pautrier microabscesses on biopsy, and can progress to erythroderma with circulating Sezary cells. This is:

- (A) Nummular eczema



- (B) Plaque psoriasis
- (C) Mycosis fungoides (cutaneous T-cell lymphoma)
- (D) Discoid lupus erythematosus

Q15. An acutely unwell febrile child has rapidly spreading non-blanching purpuric patches. Pressing a clear glass slide over a lesion (the tumbler test, marked X) shows it does NOT fade, and coagulation studies suggest disseminated intravascular coagulation. This emergency is:



- (A) Immune thrombocytopenic purpura
- (B) Henoch-Schonlein purpura
- (C) Purpura fulminans (meningococcaemia)
- (D) Senile (actinic) purpura



Detailed Solutions

Q1.

Solution

Concept – the Koebner (isomorphic) phenomenon: This is the appearance of typical lesions of a skin disease along a line of trauma in previously normal skin.

Step 1 – read the clue: New psoriatic plaques forming in a **straight line along a fresh scratch** (marked X) is the Koebner phenomenon.

Step 2 – which diseases show it: Psoriasis, lichen planus and vitiligo are the classic Koebner-positive disorders.

Why the other options are wrong:

- B, Auspitz sign: is pinpoint bleeding when psoriatic scale is scraped off, not a linear response to trauma.
- C, Nikolsky sign: is shearing of the epidermis by lateral pressure in pemphigus.
- D, Darier sign: is urtication of a lesion when rubbed, seen in mastocytosis.

Final Answer: Koebner (isomorphic) phenomenon ⇒ A

Answer: (A) [Go Back to Q1](#)

Q2.

Solution

Concept – juvenile plantar dermatosis: This is a friction-and-occlusion eczema of the weight-bearing forefoot in children, a form of irritant contact dermatitis.

Step 1 – read the clues: **Shiny, glazed, fissured** skin over the **weight-bearing forefoot and toe pads** that **sparing the toe clefts**, worse with occlusive trainers and sweaty socks, is juvenile plantar dermatosis.

Step 2 – the mechanism: Repeated friction and moisture-then-drying (an irritant process, not an allergen) damage the barrier, so it is an **irritant contact dermatitis**.

Why the other options are wrong:

- A, tinea pedis: typically involves the toe clefts and is KOH-positive, the opposite pattern.
- B, atopic dermatitis of the sole: favours flexures and is not confined to pressure areas.



- D, allergic contact dermatitis to rubber: needs sensitisation and usually spares the sparing pattern seen here, matching the dorsum or whole contact area.

Final Answer: Irritant contact dermatitis ⇒ C

Answer: (C) [Go Back to Q2](#)

Q3.

Solution

Concept – parapsoriasis: Parapsoriasis is a group of chronic scaly patch disorders, the large-plaque form of which can progress to mycosis fungoides.

Step 1 – read the clues: **Persistent, asymptomatic, ill-defined scaly patches** on the trunk and buttocks, some **over 5 cm** with a ‘**digitate**’ shape, are parapsoriasis.

Step 2 – the significance: Large-plaque parapsoriasis may evolve over years into early **mycosis fungoides** (cutaneous T-cell lymphoma), so such patches need monitoring and biopsy if they thicken.

Why the other options are wrong:

- A, pityriasis rosea: is self-limiting over weeks with a herald patch, not persistent for years.
- C, nummular eczema: gives itchy coin-shaped exudative plaques, not asymptomatic digitate patches.
- D, guttate psoriasis: gives small drop-like scaly papules after streptococcal throat infection.

Final Answer: Parapsoriasis ⇒ B

Answer: (B) [Go Back to Q3](#)

Q4.

Solution

Concept – candidal intertrigo: Candidal intertrigo is *Candida albicans* overgrowth in warm, moist skin folds.

Step 1 – read the clues: A **moist, macerated, beefy-red** rash in the submammary and groin folds of an **obese diabetic**, fringed by **satellite pustules**, is candidal intertrigo.

Step 2 – the hallmark: The outlying **satellite lesions** beyond the main plaque



are the classic clue; KOH shows budding yeasts and pseudohyphae.

Why the other options are wrong:

- B, tinea cruris: has a raised advancing scaly border with central clearing and no satellite pustules.
- C, erythrasma: is a well-defined brown patch that fluoresces coral-red under Wood light.
- D, flexural psoriasis: gives well-demarcated shiny red plaques without satellite pustules.

Final Answer: Candidal intertrigo $\Rightarrow$ A

Answer: (A) [Go Back to Q4](#)

Q5.

Solution

Concept – cutaneous leishmaniasis (oriental sore): Cutaneous leishmaniasis is a protozoal infection by *Leishmania* species spread by the sandfly.

Step 1 – read the clues: A **slowly enlarging painless ulcer** with a raised border on an exposed site, in a traveller from an **endemic desert area**, after a **sandfly bite**, is the oriental sore.

Step 2 – the diagnosis: A slit-skin smear shows **amastigotes (Leishman-Donovan bodies)** inside macrophages, confirming leishmaniasis.

Why the other options are wrong:

- A, cutaneous tuberculosis: shows granulomas and acid-fast bacilli, not amastigotes.
- C, sporotrichosis: spreads as nodules along lymphatics after plant injury.
- D, basal cell carcinoma: is a pearly nodule with telangiectasia in sun-damaged older skin, not sandfly-transmitted.

Final Answer: Cutaneous leishmaniasis (oriental sore) $\Rightarrow$ B

Answer: (B) [Go Back to Q5](#)



Q6.

Solution

Concept – secondary impetiginisation of scabies: Scratching in scabies breaks the skin and lets bacteria infect the excoriated lesions.

Step 1 – read the clues: On top of typical **itchy burrows**, the child develops **new honey-coloured crusts and pustules** (marked X) after scratching. This is bacterial superinfection.

Step 2 – the mechanism: Staphylococcus aureus or Streptococcus pyogenes colonise the scratched skin, producing impetigo over the scabetic lesions (secondary impetiginisation); treat both the mite and the infection.

Why the other options are wrong:

- A, crusted (Norwegian) scabies: is thick hyperkeratotic scale teeming with mites in immunocompromised patients, not honey crusts.
- B, an id reaction: is a widespread itchy eczematous eruption, not localised honey crusts.
- C, contact dermatitis to permethrin: is eczematous and itchy, not a pustular crusted infection.

Final Answer: Secondary impetiginisation of scabies ⇒ D

Answer: (D) [Go Back to Q6](#)

Q7.

Solution

Concept – pemphigus vegetans: Pemphigus vegetans is a rare variant of pemphigus vulgaris favouring the flexures.

Step 1 – read the clues: **Heaped-up, vegetating, warty granulation-tissue plaques** studded with pustules in the **axillae and groin**, with a positive Nikolsky sign, define pemphigus vegetans.

Step 2 – the mechanism: As in pemphigus vulgaris, IgG against desmoglein 3 causes acantholysis; in intertriginous sites the eroded areas heal with exuberant vegetating granulation tissue.

Why the other options are wrong:

- A, bullous pemphigoid: gives tense subepidermal bullae with a negative Nikolsky sign.



- B, dermatitis herpetiformis: gives itchy grouped vesicles with granular IgA, not vegetating plaques.
- C, Hailey-Hailey disease: is a genetic flexural blistering disorder without pemphigus autoantibodies.

Final Answer: Pemphigus vegetans ⇒ D

Answer: (D) [Go Back to Q7](#)

Q8.

Solution

Concept – dermatomyositis: Dermatomyositis is an autoimmune inflammatory myopathy with distinctive skin signs.

Step 1 – read the signs: A **violaceous (heliotrope) rash** over the eyelids, **Gottron papules** over the knuckles (marked X) and **proximal muscle weakness** define dermatomyositis.

Step 2 – why it matters: In adults dermatomyositis carries an increased risk of internal malignancy, so an age-appropriate cancer screen is mandatory.

Why the other options are wrong:

- A, systemic lupus erythematosus: gives a malar rash sparing the nasolabial folds, and its hand rash spares the knuckles (favours the interphalangeal skin).
- C, psoriatic arthritis: gives scaly plaques and nail changes, not heliotrope rash and myositis.
- D, scleroderma: causes skin tightening and sclerodactyly, not heliotrope rash with proximal weakness.

Final Answer: Dermatomyositis ⇒ B

Answer: (B) [Go Back to Q8](#)

Q9.

Solution

Concept – pediculosis pubis: Pediculosis pubis is infestation by the crab louse, *Pthirus pubis*.

Step 1 – read the clues: Itching of the pubic region, crab-shaped lice clinging to hair bases and **slate-grey to bluish macules (maculae ceruleae)** on the lower



abdomen and thighs indicate pubic lice.

Step 2 – management: Topical permethrin and treatment of sexual contacts are needed; screen for other sexually transmitted infections.

Why the other options are wrong:

- A, scabies: causes burrows in finger webs and generalised nocturnal itch, without crab lice or blue macules.
- B, tinea cruris: is a scaly annular groin plaque, not a louse infestation.
- D, molluscum contagiosum: gives umbilicated pearly papules, not lice.

Final Answer: Pediculosis pubis (crab lice) ⇒ C

Answer: (C) [Go Back to Q9](#)

Q10.

Solution

Concept – granuloma inguinale (donovanosis): Donovanosis is a chronic genital ulcerative infection by *Klebsiella granulomatis*.

Step 1 – read the ulcer: A **slowly progressive, painless, beefy-red** genital ulcer that **bleeds readily** on contact is characteristic of donovanosis.

Step 2 – confirmation: A Giemsa-stained tissue smear shows intracytoplasmic **Donovan bodies** within macrophages.

Why the other options are wrong:

- B, chancroid: gives a painful, ragged, undermined ulcer with tender buboes (*Haemophilus ducreyi*).
- C, primary syphilis: gives a painless indurated chancre with a clean base, but shows spirochaetes, not Donovan bodies.
- D, lymphogranuloma venereum: causes a transient ulcer then painful matted inguinal buboes, not a persistent beefy-red bleeding ulcer.

Final Answer: Granuloma inguinale (donovanosis) ⇒ A

Answer: (A) [Go Back to Q10](#)



Q11.

Solution

Concept – erythema nodosum leprosum (type 2 lepra reaction): This is an immune-complex reaction complicating multibacillary leprosy.

Step 1 – read the clues: Crops of **tender, red subcutaneous nodules** with **fever and malaise** during treatment of multibacillary leprosy indicate erythema nodosum leprosum (ENL).

Step 2 – the mechanism and treatment: Immune-complex deposition (a type III reaction) drives it; **thalidomide** (or systemic steroids) controls severe ENL.

Why the other options are wrong:

- A, reversal (type 1) reaction: is a cell-mediated flare with swelling of existing plaques and nerve pain, not crops of tender nodules.
- B, erythema multiforme: gives target lesions triggered by infection or drugs, unrelated to leprosy immune complexes.
- C, erythema induratum: is nodular vasculitis on the calves linked to tuberculosis.

Final Answer: Erythema nodosum leprosum $\Rightarrow$ D

Answer: (D) [Go Back to Q11](#)

Q12.

Solution

Concept – neurofibromatosis type 1: NF1 is an autosomal dominant neurocutaneous disorder with cafe-au-lait macules.

Step 1 – apply the criteria: **Six or more cafe-au-lait macules** over 5 mm plus **axillary and inguinal freckling** (Crowe sign) meet the diagnostic criteria for NF1.

Step 2 – other features: Neurofibromas, Lisch nodules of the iris and optic gliomas complete the picture.

Why the other options are wrong:

- B, vitiligo: gives depigmented white macules, not light-brown cafe-au-lait macules.
- C, tuberous sclerosis: gives ash-leaf hypopigmented macules and facial angiofibromas, not cafe-au-lait macules with axillary freckling.
- D, McCune-Albright syndrome: gives a few large ‘coast-of-Maine’ cafe-au-lait macules with bone and endocrine disease, without axillary freckling.



Final Answer: Neurofibromatosis type 1 $\Rightarrow$ **A**

Answer: (A) [Go Back to Q12](#)

Q13.

Solution

Concept – scarring versus non-scarring alopecia: Scarring (cicatricial) alopecia destroys the hair follicle permanently, whereas non-scarring alopecia preserves it.

Step 1 – find the reliable sign: Loss of the visible follicular openings over the bald patch means the follicles have been destroyed, marking **scarring** alopecia.

Step 2 – the implication: Because follicles are gone, regrowth cannot occur; early biopsy and treatment aim to save remaining follicles.

Why the other options are wrong:

- A, exclamation-mark hairs: are a feature of alopecia areata, a *non-scarring* type.
- C, a positive hair-pull test: indicates active shedding in non-scarring loss, with follicles intact.
- D, diffuse thinning with preserved follicles: is by definition non-scarring.

Final Answer: Loss of visible follicular openings over the patch $\Rightarrow$ **B**

Answer: (B) [Go Back to Q13](#)

Q14.

Solution

Concept – mycosis fungoides (cutaneous T-cell lymphoma): Mycosis fungoides is the commonest cutaneous T-cell lymphoma, progressing through patch, plaque and tumour stages.

Step 1 – read the clues: Years of fixed scaly patches evolving into infiltrated irregular plaques, with epidermotropic atypical T-cells and Pautrier microabscesses on biopsy, define mycosis fungoides.

Step 2 – progression: Advanced disease can generalise to erythroderma with circulating **Szary cells** (Szary syndrome).

Why the other options are wrong:

- A, nummular eczema: gives itchy coin-shaped plaques without atypical epi-



dermotropic T-cells.

- B, plaque psoriasis: has regular silvery plaques and no Pautrier microabscesses.
- D, discoid lupus erythematosus: gives scarring scaly plaques with follicular plugging on the face, not epidermotropic lymphoma.

Final Answer: Mycosis fungoides (cutaneous T-cell lymphoma) ⇒ C

Answer: (C) [Go Back to Q14](#)

Q15.

Solution

Concept – purpura fulminans (meningococcaemia): Purpura fulminans is a dermatological emergency of rapidly spreading haemorrhagic skin necrosis with disseminated intravascular coagulation.

Step 1 – read the clues: An acutely unwell febrile child with **rapidly spreading non-blanching purpura** that does **not fade on the tumbler (glass) test** (marked X), plus **DIC**, points to meningococcaemia with purpura fulminans.

Step 2 – the emergency response: This is a medical emergency; give immediate parenteral antibiotics (benzylpenicillin or ceftriaxone) and resuscitation without waiting for confirmation.

Why the other options are wrong:

- A, immune thrombocytopenic purpura: causes petechiae and bruising in a well child, not fulminant necrosis with DIC.
- B, Henoch-Schonlein purpura: gives palpable purpura over the buttocks and legs in a relatively well child, not rapidly progressive necrosis.
- D, senile (actinic) purpura: is harmless bruising on sun-damaged forearms of the elderly.

Final Answer: Purpura fulminans (meningococcaemia) ⇒ C

Answer: (C) [Go Back to Q15](#)



Answer Key

Q	Ans	Q	Ans	Q	Ans	Q	Ans	Q	Ans
1	A	2	C	3	B	4	A	5	B
6	D	7	D	8	B	9	C	10	A
11	D	12	A	13	B	14	C	15	C

