INI CET Dermatology

Sample Paper – 2

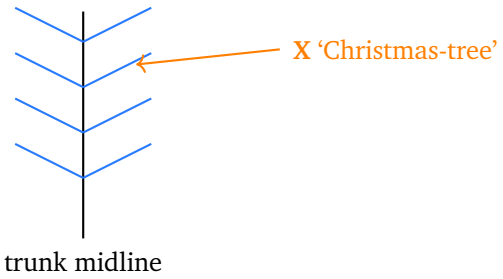
Duration: 14 Minutes **Maximum Marks: 15**

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. A single larger scaly oval patch (the herald patch) appears first, followed a week later by many smaller oval scaly lesions on the trunk whose long axes run along the skin creases, giving the 'Christmas-tree' pattern sketched below (arrow **X**). The diagnosis is:



(A) Psoriasis

(B) Pityriasis rosea

(C) Lichen planus

(D) Seborrhoeic dermatitis

Q2. Greasy yellowish scaling over the scalp, eyebrows, nasolabial folds and behind the ears, linked to overgrowth of *Malassezia* yeast, is:

(A) Seborrhoeic dermatitis

(B) Atopic dermatitis

(C) Psoriasis

(D) Tinea capitis

Q3. An itchy, eczematous eruption confined to the site where a nickel earring or a cosmetic touches the skin, mediated by a type IV (delayed) hypersensitivity reaction and confirmed by patch testing, is:

(A) Allergic contact dermatitis

(B) Atopic dermatitis

(C) Psoriasis

(D) Lichen planus

Cutaneous Infections

Q4. Multiple hypopigmented, finely scaly macules over the upper trunk of a young adult, with a 'spaghetti-and-meatballs' appearance of short hyphae and round spores on potassium hydroxide (KOH) microscopy, are caused by *Malassezia*. This is:

(A) Vitiligo

(B) Pityriasis (tinea) versicolor

(C) Pityriasis alba

(D) Indeterminate leprosy

Q5. A well-demarcated, raised, bright-red, warm and tender plaque on the lower leg of a febrile patient, with a sharp palpable edge and caused mainly by *Streptococcus pyogenes*, is:

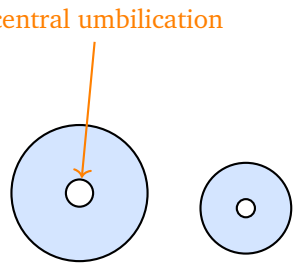
(A) Impetigo

(B) Erysipelas

(C) Allergic contact dermatitis

(D) Herpes zoster

Q6. The lesions sketched below are small, firm, dome-shaped papules with a central dimple (umbilication, marked **X**), caused by a poxvirus and spread by contact. They are:



(A) Herpes simplex

(B) Impetigo

(C) Molluscum contagiosum

(D) Common viral wart

Vesiculobullous and Autoimmune Disorders

Q7. Intensely itchy, grouped small vesicles symmetrically over the extensor elbows, knees and buttocks, with granular IgA deposits at the dermal papillae and a strong link to coeliac disease, characterise:

(A) Pemphigus vulgaris

(B) Bullous pemphigoid

(C) Pemphigus foliaceus

(D) Dermatitis herpetiformis

Q8. A young woman with a symmetrical red rash over the cheeks and bridge of the nose that spares the nasolabial folds (malar 'butterfly' rash), photosensitivity and a positive antinuclear antibody (ANA) test most likely has skin signs of:

(A) Dermatomyositis

(B) Rosacea

(C) Systemic lupus erythematosus

(D) Psoriasis

Infestations, Sexually Transmitted Infections and Leprosy

Q9. Itching of the scalp in a schoolchild, with tiny oval whitish eggs (nits) firmly cemented to the hair shafts near the scalp, is caused by:

(A) Pediculosis capitis (head lice)

(B) Tinea capitis

(C) Seborrhoeic dermatitis

(D) Scabies

Q10. A painful, non-indurated genital ulcer with a ragged undermined edge and a soft base, appearing a few days after exposure and caused by *Haemophilus ducreyi*, is:

(A) Syphilis (Treponema pallidum)

(B) Genital herpes

(C) Gonorrhoea

(D) Chancroid (Haemophilus ducreyi)

Q11. A patient with numerous symmetrical skin nodules and plaques, diffuse thickening of the facial skin producing a 'leonine facies', and abundant acid-fast bacilli on slit-skin smear, has:

(A) Tuberculoid leprosy

(B) Vitiligo

(C) Pityriasis versicolor

(D) Lepromatous leprosy

Pigmentary, Hair and Drug Reactions

Q12. Symmetrical, light-to-dark brown patches of hyperpigmentation over the cheeks, forehead and upper lip of a woman, worsened by pregnancy, sun exposure and hormones, indicate:

(A) Melasma

(B) Vitiligo

(C) Freckles (ephelides)

(D) Post-inflammatory hyperpigmentation

Q13. A well-defined round dusky-red plaque that leaves residual pigmentation and recurs at the *same* site every time a particular drug is taken is a:

(A) Erythema multiforme

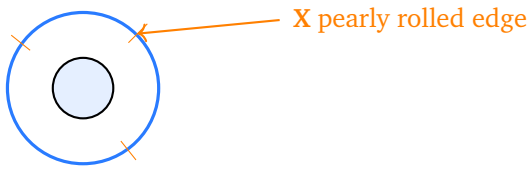
(B) Urticaria

(C) Fixed drug eruption

(D) Allergic contact dermatitis

Skin Tumours and Dermatological Emergencies

Q14. The lesion sketched below sits on the sun-exposed face of an elderly patient: a slow-growing nodule with a pearly, rolled, raised edge crossed by fine telangiectatic vessels and a central ulcer ('rodent ulcer', marked **X**). It is a locally invasive:



(A) Malignant melanoma

(B) Seborrhoeic keratosis

(C) Basal cell carcinoma

(D) Actinic keratosis

Q15. A severe drug reaction with painful target-like lesions, prominent erosions of two or more mucous membranes (mouth, eyes, genitals) and epidermal detachment of less than 10% of the body surface is:

(A) Toxic epidermal necrolysis (TEN)

(B) Stevens-Johnson syndrome

(C) Fixed drug eruption

(D) Erythema multiforme minor

Detailed Solutions

Q1.

Solution

Concept – pityriasis rosea: Pityriasis rosea is a self-limiting papulosquamous eruption, probably triggered by human herpesviruses 6 and 7.

Step 1 – read the sequence: A single larger **herald patch** appears first, then after about a week many smaller oval scaly lesions erupt on the trunk.

Step 2 – the pattern: The long axes of the oval lesions follow the skin cleavage lines, giving the classic **'Christmas-tree'** distribution (arrow **X**), each with a fine collarette of scale.

Why the other options are wrong:

- A, psoriasis: gives silvery scaly plaques on extensor surfaces, not a herald patch.
- C, lichen planus: gives violaceous polygonal papules with Wickham striae.
- D, seborrhoeic dermatitis: gives greasy scale on the scalp and face.

Final Answer: Pityriasis rosea ⇒ B

Answer: (B) Go Back to Q1

Q2.

Solution

Concept – seborrhoeic dermatitis: Seborrhoeic dermatitis is a chronic eczema of the sebum-rich areas of the skin.

Step 1 – read the clue: Greasy yellowish scaling over the scalp, eyebrows, nasolabial folds and behind the ears is classic for seborrhoeic dermatitis.

Step 2 – the mechanism: An inflammatory response to overgrowth of *Malassezia* yeast on oily skin drives it; treatment uses antifungal and mild anti-inflammatory agents.

Why the other options are wrong:

- B, atopic dermatitis: is an itchy flexural eczema, not greasy central-face scaling.
- C, psoriasis: gives silvery scale on extensor surfaces.
- D, tinea capitis: is a KOH-positive scaly patch with broken hairs.

Final Answer: Seborrhoeic dermatitis ⇒ A

Answer: (A) Go Back to Q2

Q3.

Solution

Concept – allergic contact dermatitis: Allergic contact dermatitis is a delayed, cell-mediated reaction to an external allergen.

Step 1 – read the clue: An itchy eczematous eruption **limited to the site** touched by nickel or a cosmetic points to allergic contact dermatitis.

Step 2 – the mechanism: It is a **type IV (delayed) hypersensitivity** reaction; **patch testing** identifies the responsible allergen.

Why the other options are wrong:

- B, atopic dermatitis: is a widespread flexural eczema with the atopic triad, not a contact-site rash.
- C, psoriasis: gives silvery scaly extensor plaques.
- D, lichen planus: gives violaceous polygonal papules with Wickham striae.

Final Answer: Allergic contact dermatitis ⇒ A

Answer: (A) Go Back to Q3

Q4.

Solution

Concept – pityriasis (tinea) versicolor: Pityriasis versicolor is a superficial infection by *Malassezia* yeast.

Step 1 – read the lesion: Hypopigmented, finely scaly macules on the upper trunk of a young adult are typical of pityriasis versicolor.

Step 2 – confirmation: KOH microscopy shows the classic **'spaghetti-and-meatballs'** mix of short hyphae and round spores.

Why the other options are wrong:

- A, vitiligo: is fully depigmented and *non-scaly*, and KOH is negative.
- C, pityriasis alba: gives faint pale facial patches in children, KOH negative.
- D, indeterminate leprosy: shows sensory change and no KOH hyphae.

Final Answer: Pityriasis (tinea) versicolor ⇒ B

Answer: (B) Go Back to Q4

Q5.

Solution

Concept – erysipelas: Erysipelas is an acute bacterial infection of the upper dermis and superficial lymphatics.

Step 1 – read the clue: A **well-demarcated**, raised, bright-red, warm and tender plaque with a **sharp palpable edge** and fever is erysipelas.

Step 2 – the organism: It is caused mainly by *Streptococcus pyogenes*; the sharp raised border distinguishes it from the deeper, more diffuse cellulitis.

Why the other options are wrong:

- A, impetigo: gives honey-coloured crusts, not a hot tender plaque.
- C, contact dermatitis: is itchy and eczematous, not febrile and tender.
- D, herpes zoster: is a painful dermatomal vesicular rash, not a red plaque.

Final Answer: Erysipelas ⇒ B

Answer: (B) Go Back to Q5

Q6.

Solution

Concept – molluscum contagiosum: Molluscum contagiosum is a common skin infection caused by a poxvirus.

Step 1 – read the lesion: Firm, dome-shaped papules with a **central dimple (umbilication)** marked **X**, spread by skin contact, are molluscum contagiosum.

Step 2 – the course: The lesions contain a cheesy core (molluscum bodies) and usually clear spontaneously over months.

Why the other options are wrong:

- A, herpes simplex: gives grouped vesicles on an erythematous base, not umbilicated papules.
- B, impetigo: gives honey-coloured crusts.
- D, common viral wart: is a rough hyperkeratotic papule without central umbilication.

Final Answer: Molluscum contagiosum ⇒ C

Answer: (C) Go Back to Q6

Q7.

Solution

Concept – dermatitis herpetiformis: Dermatitis herpetiformis is the cutaneous expression of gluten sensitivity.

Step 1 – read the clues: Intensely itchy grouped vesicles symmetrically over the extensor elbows, knees and buttocks are typical of dermatitis herpetiformis.

Step 2 – the immunology: Direct immunofluorescence shows **granular IgA** at the dermal papillae, and there is a strong association with **coeliac disease**; a gluten-free diet and dapsone help.

Why the other options are wrong:

- A, pemphigus vulgaris: has flaccid intraepidermal bullae with a positive Nikolsky sign.
- B, bullous pemphigoid: has tense subepidermal bullae with linear IgG/C3.
- C, pemphigus foliaceus: is a superficial pemphigus with scaly erosions.

Final Answer: Dermatitis herpetiformis $\Rightarrow$ D

Answer: (D) Go Back to Q7

Q8.

Solution

Concept – systemic lupus erythematosus (SLE): SLE is a multisystem autoimmune disease with characteristic skin signs.

Step 1 – read the clues: A symmetrical **malar 'butterfly' rash** that **spares the nasolabial folds**, with **photosensitivity**, points to the skin signs of SLE.

Step 2 – confirmation: A positive **antinuclear antibody (ANA)** test supports it; more specific antibodies (anti-dsDNA, anti-Sm) confirm the disease.

Why the other options are wrong:

- A, dermatomyositis: gives a heliotrope rash and Gottron papules, with muscle weakness.
- B, rosacea: gives central-face flushing, papules and pustules, and *does not* spare the nasolabial folds in the same way.
- D, psoriasis: gives silvery scaly extensor plaques, not a photosensitive malar

rash.

Final Answer: Systemic lupus erythematosus $\Rightarrow$ C

Answer: (C) Go Back to Q8

Q9.

Solution

Concept – pediculosis capitis (head lice): Pediculosis capitis is infestation of the scalp by the head louse *Pediculus humanus capitis*.

Step 1 – read the clues: Scalp itch in a schoolchild with **oval whitish nits cemented to the hair shafts** near the scalp is head lice.

Step 2 – management: Topical permethrin or dimeticone plus wet combing, and treatment of affected close contacts, clears the infestation.

Why the other options are wrong:

- B, tinea capitis: gives scaly patches with broken hairs and is KOH/culture positive.
- C, seborrhoeic dermatitis: gives greasy scale, not nits on hair shafts.
- D, scabies: gives burrows in the finger webs and wrists, not scalp nits.

Final Answer: Pediculosis capitis (head lice) $\Rightarrow$ A

Answer: (A) Go Back to Q9

Q10.

Solution

Concept – chancroid: Chancroid is a sexually transmitted infection causing a painful genital ulcer.

Step 1 – read the ulcer: A **painful**, non-indurated ulcer with a **ragged undermined edge** and a soft base is chancroid.

Step 2 – the organism: It is caused by ***Haemophilus ducreyi***; tender suppurative inguinal lymphadenopathy (bubo) may accompany it.

Why the other options are wrong:

- A, syphilis: gives a *painless* indurated chancre with a clean base.
- B, genital herpes: gives painful grouped vesicles that erode, not a single ragged ulcer.

- C, gonorrhoea: causes urethral discharge, not a genital ulcer.

Final Answer: Chancroid (Haemophilus ducreyi) $\Rightarrow$ D

Answer: (D) Go Back to Q10

Q11.

Solution

Concept – lepromatous leprosy: Lepromatous leprosy is the multibacillary pole of leprosy, with weak cell-mediated immunity.

Step 1 – read the clues: Numerous symmetrical nodules and plaques with diffuse facial thickening (**'leonine facies'**) indicate lepromatous leprosy.

Step 2 – confirmation: The **slit-skin smear** is strongly positive for acid-fast bacilli (high bacterial load), unlike the paucibacillary tuberculoid form.

Why the other options are wrong:

- A, tuberculoid leprosy: has few well-defined anaesthetic patches and a *negative* smear.
- B, vitiligo: is depigmentation with normal sensation and no bacilli.
- C, pityriasis versicolor: is a superficial fungal dyspigmentation.

Final Answer: Lepromatous leprosy $\Rightarrow$ D

Answer: (D) Go Back to Q11

Q12.

Solution

Concept – melasma: Melasma is acquired symmetrical hyperpigmentation of sun-exposed facial skin.

Step 1 – read the clue: Symmetrical brown patches over the cheeks, forehead and upper lip of a woman indicate melasma.

Step 2 – the triggers: Pregnancy, sun exposure and hormones (oral contraceptives) drive increased melanin; sun protection is central to treatment.

Why the other options are wrong:

- B, vitiligo: is *loss* of pigment (white macules), the opposite of hyperpigmentation.

- C, freckles: are small light-brown macules that darken with sun, not confluent facial patches.
- D, post-inflammatory hyperpigmentation: follows a preceding inflammatory lesion at that site.

Final Answer: Melasma ⇒ A

Answer: (A) Go Back to Q12

Q13.

Solution

Concept – fixed drug eruption: A fixed drug eruption is a drug reaction that recurs at the same site on re-exposure.

Step 1 – read the clue: A well-defined round **dusky-red plaque** that leaves residual pigmentation and **recurs at the same site** each time the drug is taken is a fixed drug eruption.

Step 2 – the culprits: Common triggers include sulfonamides, non-steroidal anti-inflammatory drugs and paracetamol; withdrawal of the drug is curative.

Why the other options are wrong:

- A, erythema multiforme: gives widespread target lesions, not a single recurring plaque.
- B, urticaria: is transient itchy wheals that move and fade within hours.
- D, contact dermatitis: is an eczematous reaction at the site of an external contactant.

Final Answer: Fixed drug eruption ⇒ C

Answer: (C) Go Back to Q13

Q14.

Solution

Concept – basal cell carcinoma: Basal cell carcinoma is the commonest skin cancer, arising in sun-damaged skin.

Step 1 – read the lesion: A slow-growing nodule with a **pearly, rolled edge**, fine **telangiectasia** and a central ulcer ('rodent ulcer', marked **X**) on the face is a basal cell carcinoma.

Step 2 – the behaviour: It is **locally invasive** but rarely metastasises; excision or

other local treatment is usually curative.

Why the other options are wrong:

- A, malignant melanoma: is a pigmented lesion assessed by the ABCDE rule, not a pearly nodule.
- B, seborrhoeic keratosis: is a benign 'stuck-on' warty plaque.
- D, actinic keratosis: is a rough, scaly sun-damage patch, not a pearly ulcer.

Final Answer: Basal cell carcinoma $\Rightarrow$ C

Answer: (C) Go Back to Q14

Q15.

Solution

Concept – Stevens-Johnson syndrome: Stevens-Johnson syndrome is a severe mucocutaneous drug reaction.

Step 1 – read the clues: Painful target-like lesions, **erosions of two or more mucous membranes** and epidermal detachment of **less than 10%** of the body surface define Stevens-Johnson syndrome.

Step 2 – the spectrum: It sits on a continuum with toxic epidermal necrolysis (which involves over 30% detachment); the culprit drug must be stopped at once.

Why the other options are wrong:

- A, toxic epidermal necrolysis: involves widespread detachment over 30% of the body surface.
- C, fixed drug eruption: is a single localised recurring plaque.
- D, erythema multiforme minor: has target lesions with little or no mucosal involvement or detachment.

Final Answer: Stevens-Johnson syndrome $\Rightarrow$ B

Answer: (B) Go Back to Q15

Answer Key

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