

Annual Examination, August 2023
Bachelor of Dental Surgery – First Year
BIOCHEMISTRY, NUTRITION AND DIETETICS (BDS-BIOC-101)

Time: 3 hrs.

Max Marks: **80**

No. of pages: 2

Note: ● Question Paper has **TWO** parts: **PART-A** and **PART-B**. Marks are indicated against each question.

● All questions are **compulsory**. Draw the diagrams where ever necessary.

● Attempt the **PART-A** and **PART-B** in the separate answer sheets.

PART-A

Q.1 Multiple choice questions:

- a) Specific test for keto hexose sugar is:
 - i) Benedict test
 - ii) Fehling test
 - iii) Barfoed test
 - iv) All of the above
- b) The ion which inhibits enolase activity is _____.
 - i) Sodium
 - ii) Manganese
 - iii) Fluoride
 - iv) Bicarbonate
- c) Marker Enzyme(s) of cardiac disease is/are:
 - i) LDH
 - ii) AST
 - iii) CK
 - iv) All of the above
- d) Tyrosine rich food and Iodised salt are recommendatory for prevention of which of following?
 - i) Hyperthyroidism
 - ii) Hyper-parathyroidism
 - iii) Endemic Goitre(hypothyroidism)
 - iv) Addison's disease
- e) Bile acid is the end product of:
 - i) Heme
 - ii) Cholesterol
 - iii) Purine
 - iv) Pyrimidines

1×5

Q.2 Answer the following in brief:

- a) What is BMR? How BMR is significant?
- b) Write mechanism by which calcium homeostasis is maintained.
- c) What is the normal pH of blood? Explain the role of plasma buffers in the maintenance of acid -base balance.
- d) Enumerate liver function tests and describe in detail any two of them with clinical significance.
- e) Discuss diabetes mellitus and its types.

5×5

Q.3 Describe HMP cycle and its significance in the body in detail.

10

PART-B

Q.4 Multiple choice questions:

- a) The increase in serum creatinine level is an indication of _____.
 - i) Diabetes mellitus
 - ii) Hepatitis
 - iii) Renal diseases
 - iv) Jaundice
- b) Biuret test is a specific test to find out linkage.
 - i) -SH linkage
 - ii) -CONH- linkage
 - iii) O-NH.NH₂-
 - iv) -O- linkage
- c) Normal range of blood urea is _____.
 - i) 60-100 mg %
 - ii) 9-11 mg %
 - iii) 0.6-1.2 mg %
 - iv) 20-40 mg %

- d) Clotting time and prothrombin time are increased in deficiency of _____.
- | | |
|----------------|---------------|
| i) Vitamin C | ii) Vitamin D |
| iii) Vitamin K | iv) Vitamin E |
- e) Concentration of fluorine in drinking water is _____.
- | | |
|-------------|-----------------|
| i) 1-0.2ppm | ii) 1-2 ppm |
| iii) 4-5ppm | iv) 0.5-0.6 ppm |

1×5

Q.5 Answer the following in brief:

- Describe beta oxidation of fatty acids.
- Explain gout.
- Describe the enzyme inhibition in detail.
- What are biologically important substances derived from Glycine? And indicate their functions.
- Describe the reactions of the urea cycle. Discuss the disorders of urea cycle. **5×5**

Q.6 Describe the sources, biochemical functions and deficiency manifestations of vitamin D.

10

Annual Examination, August 2023
Bachelor of Dental Surgery – First / Second Year
COMPUTER APPLICATIONS (BDS-CA-OE-001)

Time: 3 hrs.

Max Marks: **100**

No. of pages: 2

Note: ● Question Paper has **TWO** parts: **PART-A** and **PART-B**. Marks are indicated against each question.

- All questions are **compulsory**. Draw the diagrams where ever necessary.
- Attempt **PART-A** and **PART-B** in the separate answer sheets.

PART-A

Q.1 Multiple choice questions:

- a) What is the primary function of a spreadsheet software?
 - 1) Creating and editing text documents
 - 2) Analyzing and manipulating numerical data
 - 3) Designing web pages
 - 4) Creating visual presentations
 - 5) Managing email communication
- b) In a word processor, what does the "undo" function typically allow you to do?
 - 1) Save the document
 - 2) Copy text
 - 3) Redo the last action
 - 4) Delete a paragraph
 - 5) Reverse the last editing action
- c) Which type of software is used to create and deliver visual presentations with slides?
 - 1) Spreadsheet software
 - 2) Word processor
 - 3) Presentation software
 - 4) Graphic design software
 - 5) Video editing software
- d) What is the common file extension for saving spreadsheets?
 - 1) .jpg
 - 2) .pdf
 - 3) .docx
 - 4) .xls
 - 5) .ppt
- e) In spreadsheet software, what is a cell reference like "B5"?
 - 1) A specific date
 - 2) A cell in column B and row 5
 - 3) A formula
 - 4) An error
 - 5) A hyperlink

1×5

Q.2 Write short notes on the following:

- a) Explain the purpose of the "find and replace" feature in word processing software.
- b) Describe how to create a formula to calculate the sum of a range of numbers in spreadsheet software.
- c) How do slide transitions contribute to the flow of a presentation in presentation software?
- d) Explain the role of headers and footers in a document created using word processing software.
- e) What is the purpose of sorting data in a spreadsheet and how can it be done? **6×5**

Q.3 Long questions:

Evaluate the impact of conditional formatting in spreadsheet software. Explain how it can help in data analysis and decision-making. Provide examples of when conditional formatting should be applied and when it might not be necessary.

15

PART-B

Q.4 **Multiple choice questions:**

- a) What is the primary function of a database software?
 - 1) Creating and editing text documents
 - 2) Designing web pages
 - 3) Managing email communication
 - 4) Storing and managing data in structured format
 - 5) Creating visual presentations
- b) In HTML, which tag is used to create a hyperlink?
 - 1) <a>
 - 2) <h1>
 - 3) <p>
 - 4) <div>
 - 5)
- c) What does CSS stand for in web development?
 - 1) Common styling system
 - 2) Computer software and systems
 - 3) Cascading style sheets
 - 4) Content sharing service
 - 5) Central security system
- d) Which HTML tag is used to create a numbered (ordered) list?
 - 1)
 - 2)
 - 3)
 - 4) <a>
 - 5) <p>
- e) What is the purpose of a blog?
 - 1) To store and retrieve data
 - 2) To create interactive web pages
 - 3) To exchange email messages
 - 4) To share information, opinions, or experiences online
 - 5) To design multimedia presentations

1×5

Q.5 **Write short notes on the following:**

- a) Explain the primary function of a database management system (DBMS) in database software.
- b) Describe the structure of an HTML hyperlink and its attributes.
- c) What is the role of CSS in web development and how does it affect the appearance of web content?
- d) How does a blog differ from a traditional website and what types of content are typically found on blogs?
- e) What is the purpose of using HTML headings (e.g., <h1>, <h2>) in web content and how do they affect the organization of information?

6×5

Q.6 **Long questions:**

You have been given a task to create a webpage for Manav Rachna University and design the HTML structure for the webpage, including the header, navigation menu, main content area, and footer. Explain the purpose of each section and provide an example of the HTML code.

15

Annual Examination, August 2023
Bachelor of Dental Surgery – COMMON FOR ALL
COMPUTER APPLICATIONS (BDS-CA-OE-001)

Time: 3 hrs.

Max Marks: **100**

No. of pages: 2

Note: ● Question Paper has **TWO** parts: **PART-A** and **PART-B**. Marks are indicated against each question.

● All questions are **compulsory**. Draw the diagrams where ever necessary.

● Attempt **PART-A** and **PART-B** in the separate answer sheets.

PART-A

Q.1 Multiple choice questions:

- a) bgcolor is an attribute of body tag. [CO-3][L-1]
i) TRUE ii) FALSE
- b) Which enables us to send the same letter to different persons?
i) Macros ii) Template
iii) Mail merge iv) None of the above
- c) What is the gutter margin?
i) Margin that is added to the left margin when printing
ii) Margin that is added to the right margin when printing
iii) Margin that is added to the binding side of page when printing
iv) Margin that is added to the outside side of page when printing
- d) Which can be used for quick access to commonly used commands and tools?
i) Status bar ii) Toolbar
iii) Menu bar iv) Title Bar
- e) Which is the default alignment in word? [CO-1][L-1]
i) Left ii) Right
iii) Centre iv) Justify
- f) Following is used for creating presentations: [CO-1][L-2]
i) MS Word ii) MS Access
iii) MS Excel iv) Power Point
- g) Which of the following tag is used to make the underlined text? [CO-4][L-1]
i) <i> ii)
iii) <u> iv) <pre>
- h) HTML tags are enclosed in: [CO-4][L-1]
i) # and # ii) { and }
iii) ! and ? iv) < and >
- i) Which of the following tag is used to add rows in the table? [CO-4][L-1]
i) <td> and </td> ii) <th> and </th>
iii) <tr> and </tr> iv) None of the above
- j) "CTRL + UP ARROW" is used to:
i) Moves the cursor one page up ii) Moves the cursor one line up
iii) Moves the cursor one screen up iv) Moves the cursor one paragraph up **2×10**

Q.2 Write short notes on the following (**any four**):

- a) Role of PowerPoint in education. [CO-1,2,3][L-5]
b) Use of print and print preview.
c) Query wizard of Microsoft access.
d) Animation in Microsoft PowerPoint.
e) Mail merge in Microsoft word. **5×4**

- Q.3 Write the applications of Microsoft Word, Microsoft PowerPoint and Microsoft Access in dentistry. Explain in detail how you can use these applications in the field of dentistry. [CO1,2,3][L2] **10**

PART-B

- Q.4 Multiple choice questions:
- a) What does the abbreviation HTML stand for?
i) Hypertext markup language ii) High markup language
iii) Hypertext markdown language iv) None of the above
- b) Which tags are most commonly used by search engines? [CO5][L2]
i) Heading ii) Title
iii) Paragrah iv) All of the above
- c) What is the tag for space? [CO5][L1]
i)
 ii) <p>
iii) <lr> iv) <ar>
- d) How many sizes of headers are available in HTML by default?
i) 5 ii) 1
iii) 3 iv) 6
- e) What is the attribute for tag? [CO5][L1]
i) pt ii) url
iii) path iv) src
- f) Can a data cell contain images? [CO5][L1]
i) Yes ii) No
- g) Each list item in an ordered or unordered list has which tag? [CO5][L1]
i) list tag ii) ls tag
iii) li tag iv) ol tag
- h) What is the smallest header in HTML by default?
i) h1 ii) h2
iii) h6 iv) h4
- i) HTML files are saved by default with the extension?
i) .html ii) .h
iii) .ht iv) None of the above
- j) Which of the following tags doesn't require a closing tag?
i)
 ii) <hr>
iii) both i) and ii) iv) None of the above **2×10**
- Q.5 Write short notes on the following tags (**any four**): [CO5][L2]
a) HEAD
b) BODY
c) DIV
d) MARQUEE
e) FORM **5×4**
- Q.6 What are the various formatting tags in HTML? Write the difference between , tags and , <i> tags. [CO 5][L1,4] **10**

Annual Examination, August 2023
Bachelor of Dental Surgery – First / Second / Third Year
FRENCH (BDS-CDC-OE-001)

Time: 3 hrs.
Marks: **100**

Max

No. of

pages: 7

Note: All questions are **compulsory**. Marks are indicated against each question.

SECTION-A
Compréhension Écrite

Q.1 **Lisez le texte et répondez aux questions suivantes :**
(Read the text and answer the following questions) :

Aujourd'hui, c'est l'anniversaire de mon amie Erica. Elle a seize ans. Le soir, elle invite ses amis et ses cousins pour célébrer son anniversaire. J'achète un gâteau au chocolat et un cadeau. Elle fête son anniversaire dans le jardin parce qu'il fait beau. Sa mère prépare des bonbons, des sandwiches, des tartines et des frites. Il y a aussi du jus de fruits et des glaces. Ses parents sont médecins. Ils sont très sympathiques. Elle porte une belle robe blanche. Elle coupe le gâteau et nous chantons << Bon anniversaire >>. Tous les amis donnent les cadeaux à Erica. Ses parents achètent un portable pour Erica. Après le dîner, nous chantons et dansons.
Je rentre à la maison à 8h et j'étudie pour mon examen d'anglais.

Vocabulaire

- | | |
|------------------|-------------------|
| a. Jardin-garden | c. cadeaux- gifts |
| b. étudie- study | d. couper- to cut |

A. **Répondez aux questions**

2

(Answer the questions) :

a) Où(Where) est-ce que Erica fête son anniversaire et pourquoi (why)?

b) Quel temps fait-il ?

Voulons	réserve	autre choses	un steak frites	une table
monsieur	voulez	crème brûlée	entrée	du vin blanc

Au Restaurant

Garçon: Bonjour a) _____!

Manuel: Bonjour!

Garçon: Est-ce que vous avez une b) _____?

Manuel: Non. Je veux c) _____ pour deux.

Garçon: Voilà monsieur! Qu'est-ce que vous d) _____ manger?

Manuel: Comme e) _____, je voudrais de la salade verte.

Sophie: Et pour moi, f) _____, s'il vous plait!

Garçon: Et comme plat principal, monsieur?

Manuel: Comme plat principal, nous g) _____ du poisson aux pommes de terre.

Aussi nous voulons h) _____, s'il vous plait!

Garçon: Et comme dessert?

Sophie: Pour nous, de la i) _____.

Garçon: Voilà monsieur! Voulez-vous j) _____?

Manuel: Merci.

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Q.4 **Conjuguez les verbes donnés.** **(Conjugate the given verbs)**

10

- Elles _____ leurs devoirs. **(finir)**
- Le garçon _____ les journaux. **(jeter)**
- Je _____ à la maison. **(rester)**
- Vous _____ demain. **(voyager)**
- La fille _____ pour aller à la classe. **(s'habiller)**
- Les étudiants _____ le professeur. **(regarder)**
- Tu _____ avec tes amis le samedi soir? **(s'amuser)**
- Elle _____ espagnol. **(parler)**
- Je _____ indien. **(être)**
- Vous _____ les fleurs. **(adorer)**

Q.5 **Complétez avec les adjectifs possessifs. (Mon, ma, mes, ton, ta, tes etc.)** **(Complete with possessive adjectives)**

3

- Nous rangeons _____ vêtements dans l'armoire.
- Vous parlez souvent à _____ enfants?
- Marie va au cinéma avec _____ sœur et _____ frère.
- Les enfants aiment _____ parents.
- J'aime _____ amie.

Q.6 **Complétez avec l'article partitif (du, de la, de l', des)** **(Complete the sentences using partitif articles)**

3

- Je prépare _____ viande.

- b) Elle prend _____ biscuits avec _____ lait chaud.
- c) À la soirée, l'homme boit _____ bière.
- d) Elle mange _____ pizza.
- e) Nous buvons _____ eau minérale.

**Q.7 Complétez avec les prépositions données.
(Complete with the given prepositions)**

6

- a) Le cinema est _____ l'hôtel. (on the right of)
- b) Je fais le devoir _____ matin. (since)
- c) Nous partons _____ eux. (without)
- d) Il y a une piscine _____ la maison. (behind)
- e) J'habite _____ de l'école. (far from)
- f) Le chat est _____ la table. (under)

**Q.8 Mettez les phrases au pluriel.
(Change the phrases in plural)**

4

a) Le garçon est beau et gentil.

_____.

b) Elle a un animal.

_____.

c) Tu as un ami français?

_____.

d) J'ai un stylo noir.

_____.

**Q.9 Mettez les phrases au féminin.
(Change the phrases in feminine)**

4

a) Le frère de Paul est vieux.

_____.

b) L'homme est indien.

_____.

c) Le chanteur est gros.

_____.

d) Le père est bon et mince.

_____.

**Q.10 Qui est-ce?
(Who is he/she?)**

5

a) Il joue du piano.

_____.

b) Elle ausculte les maladies.

_____.

c) Il fait des plans pour construire des maisons.

_____.

d) Elle enseigne aux étudiants.

_____.

e) Elle travaille dans un agence de journaux.

_____.

Q.11 **Quelle heure est-il ?**
(What time is it ?)

5

a) 06:30

b) 12:00

c) 10:15

d) 01:45

e) 04:20

Q.12 **Reliez les colonnes.**
(Match the columns)

4

Colonne A	Colonne B	Answers
a) Il neige et la terre est blanche	i.) En automne	
b) Il fait beau et frais	ii.) En hiver	
c) La soleil brille	iii.) Au printemps	
d) Le ciel est souvent gris	iv.) En été	

Q.13 **Répondez aux questions.**
(Answer to the questions)

4

a) Quel est le mois entre juin et août?

_____.

b) Comment allez- vous?

_____.

c) Quel âge as-tu?

_____.

d) Quelle est votre nationalité?

Q.14 **Complétez avec les articles définies – le, la, l', les**
(Complete using definite articles)

3

- a) Il regarde _____ maison.
- b) Nous allons à _____ école.
- c) Elle sont _____ cadeaux.
- d) Le fille lit _____ livres intéressants.
- e) Nous choisissons _____ voiture verte.
- f) _____ avion est beau.

Q.15 **Complétez avec les articles indéfinis – un, une, des**
(Complete using indefinite articles)

3

- a) Vousavez _____ stylos sont vertes.
- b) J'ai _____ sac.
- c) Nous avons _____ cahiers.
- d) Tu as _____ copin français?
- e) L'étudiant fait _____ devoirs.
- f) C'est _____ fleur.

Q.16 **Traduisez les mots.**
(Translate the words)

3

- a) Merci beaucoup _____
- b) Happy birthday _____
- c) Good afternoon _____
- d) Bonne Chance _____
- e) Enchanté _____
- f) Au revoir _____

Q.17 **Réplissez les blancs.**
(Fill in the blanks)

3

- a) Mardi est le _____ jour de la semaine.
- b) _____ est le dernier mois de l'année.
- c) Septembre est le _____ mois de l'année.
- d) Mai est le _____ mois de l'année.
- e) _____ est le quatrième jour de la semaine.
- f) Samedi est le _____ jour de la semaine.

SECTION-D
CULTURE ET CIVILISATION

Q.18 **Nommez.**
(Name)

- a) Deux voitures françaises _____

- b) Deux vins français _____

- c) Deux couturiers français _____

- d) Deux villes françaises _____

Q.19 **Dites vrai ou Faux.**
(Tell True or False)

- a) Le suisse est un pays francophone de la France. _____
- b) Le Franc est la monnaie unique européenne. _____
- c) Pondichéry est une ville française. _____
- d) La seine est un fleuve français. _____
- e) Le Brie est un fromage français. _____
- f) Le 16 juillet est la fête nationale de la France. _____

Q.20 **Complétez les phrases.**
(Complete the sentences.)

- a) _____ est l'hymne national de la France.
- b) L'emblème national de la France est _____.
- c) Le synonyme de la France est _____.

3

3

Annual Examination, August 2023

Bachelor of Dental Surgery –Second Year

SPANISH (BDS-CDC-OE-002)

Time: 3 hrs.

Max Marks: **100**

No. of pages: 8

Note: All questions are **compulsory**. Marks are indicated against each question.

- Q.1 **Lee el texto y responde a las preguntas de comprensión.** **8**
Read the text and answer to the following questions.

Mi Colegio

¡Hola! Yo soy Pascual Duarte. Tengo diecinueve años y soy italiano. Soy alumno de la Universidad Carlos III, en Madrid. Mi colegio es un colegio mixto, es que hay chicos y chicas. Como es un colegio de la Universidad, por eso no hay uniforme y todos llevamos lo que queremos. Mi hostel está muy cerca del colegio y normalmente yo llego al colegio a pie. Yo salgo a las ocho y veinte y llego a las nueve menos cuarto. Mis clases comienzan a las nueve y cuarto.

Mi colegio tiene muchas facilidades, tenemos una cafetería, una piscina, laboratorios de ciencias, una biblioteca y un gimnasio. En el recreo yo voy a la cafetería con mis amigos y comemos bocadillos, pasta o pizza o algo especial del día. Todas mis clases terminan a las 1.30. Después yo practico deportes por una hora, en el colegio.

Me gusta el miércoles y viernes muchísimo. Tenemos clases de música, drama y lenguas extranjeras. A las 9.30 tengo la clase de francés, a las 10.30 voy a la clase de drama y luego a la música. Por la tarde, voy al gimnasio y hago ejercicio con mis amigos del barrio.

Responde a las preguntas en frases completas:

- a) ¿Cómo se llama el chico?
_____.
- b) ¿Cómo se llama la Universidad y Dónde está?
_____.
- c) ¿Cuándo llega al colegio?
_____.
- d) ¿A qué hora las clases empiezan?
_____.
- e) ¿Qué come en el recreo?
_____.
- f) ¿Cuáles son los días favoritos de Pascual? ¿Por qué?
_____.
- g) ¿Qué hace él por la tarde?
_____.

h) ¿Qué hace después de las clases en el colegio?

**Q.2 Lee el texto y elige la respuesta correcta.
Read the text and choose the correct option.**

10

Los domingos en la vida de María.

La madre de María se levanta muy temprano todos los domingos para preparar el desayuno. Ella cocina comida diferente como tortilla, huevos, pan, zumo de frutas, limonada, y leche con chocolate. María también prepara dulces para toda la familia, ella le gusta cocinar mucho como su madre. María y su hermano Juan ordenan la mesa de desayuno para la familia. A ellos les gusta ayudar a su madre mucho. Toda la familia desayuna juntos a las 9. Luego, María estudia y lee una novela. A las 10 por la mañana ella habla con su amigo para discutir sobre la clase de matemáticas. A las 5 por la tarde María va a jugar con sus amigos. Al final del día, Toda la familia come la cena junta.

Preguntas

- a) ¿Quién se levanta temprano?
i) El padre ii) La madre iii) Los hijos
- b) ¿Quién cocina la comida diferente?
i) María ii) La madre iii) Juan
- c) ¿Qué comida cocina María?
i) Dulce ii) Huevos iii) Pan
- d) ¿La madre de María se levanta muy temprano _____.
i) por la noche ii) por la tarde iii) todos los domingos
- e) ¿Quiénes son María y Juan?
i) Hermanos ii) Primos iii) Hermanos del padre
- f) ¿Que ordena María y Juan para la familia?
i) La comida ii) La silla iii) La mesa de desayuno
- g) ¿A qué hora desayuna toda la familia?
i) A las 10 ii) A las 9 iii) A las 5
- h) ¿Por qué María habla con sus amigos?
i) Para jugar
ii) Para la cena
iii) Para discutir sobre la clase de matemáticas
- i) ¿Qué hace María a las 5 por la tarde?
i) Va a jugar ii) Hablar con amigos iii) Come comida
- j) Toda la familia de María _____ junto.
i) cena ii) desayuna iii) almuerza

Q.3 Qué vas a hacer en este fin de semana usando ir a infinitivo y el tiempo.

15/2

i) We wear specs.

j) I have short and wavy hair but my sister has long and straight.

Q.5 **Observa el mapa de ciudad y elige cierto o falso.**
Observe the map of city and choose true or false.

10



- | | |
|--|--------------|
| a) El banco está a lado del restaurante. | Cierto/falso |
| b) El teléfono público está enfrente a la heladería. | Cierto/falso |
| c) La piscina está entre la farmacia y el centro comercial. | Cierto/falso |
| d) El estacionamiento está a la derecha de la tienda de abarrotes. | Cierto/falso |
| e) La oficina de correo está frente al parque. | Cierto/falso |
| f) El baño público está a la izquierda del supermercado. | Cierto/falso |
| g) La tienda de música está frente a la peluquería. | Cierto/falso |
| h) El buzón está en el estacionamiento. | Cierto/falso |
| i) El cine está sobre la calle Davis. | Cierto/falso |
| j) La heladería está detrás del cine. | Cierto/falso |

Q.6 **Completa las frases con la conjugación de estar+gerundio.**
Complete the phrases with the conjugation of estar+gerundio.

10

e.g. Mis amigos y yo (escuchar) **estamos escuchando** el nuevo disco de Vicente Amigo.

- a) Juan siempre (discutir)_____ con cualquier persona.
- b) Mientras (vosotros/escribir)_____ la lista, yo ordeno la estantería
- c) (yo/ir)_____ de camino a tu casa.

- d) Siento que me estoy (poner) _____ enferma.
- e) Justo estoy (abrir) _____ tu carta.
- f) Los alumnos están (hablar) _____ con el profesor.
- g) ¿Por qué te estás (copiar) _____ de él la prueba?
- h) Me estoy (dormir) _____ quiero ir a mi camita.
- i) Juan se está (ducharse) _____ en el cuarto de baño.
- j) Mis tíos están (viajar) _____ a Venezuela.

Q.7 Completa con los adverbio de comparativos. Complete with adverbs.

5

e.g. Ricardo es (+) **más** inteligente **que** Luisa.

- a) Sus padres tienen (-) _____ tiempo libre _____ los míos.
- b) Estudiamos (=) _____ como ellos.
- c) Nosotros comemos (-) _____ frutas _____ ella.
- d) Eres (=) _____ amable conmigo _____ Lucas.
- e) Mi hermano trabaja (+) _____ tú.
- f) Bailan (=) _____ como ella.

Q.8 Escribe qué está haciendo. Write what she is doing.

7

montar la bicicleta, ducharse, hacer la compra, cocinar, conducir el coche, trabajar, sacar a pasear al perro, regar las plantas



e.g. Ella está cocinando.

- a) _____.

- b) _____.
- c) _____.
- d) _____.
- e) _____.
- f) _____.
- g) _____.

Q.9 **Elige la respuesta correcta.**
Choose the correct option.

12

- a) ¿Cómo _____ llama?
 i) tú ii) se iii) te
- b) Mi padre _____ en una fábrica.
 i) trabaja ii) trabaja iii) trabajáis
- c) _____ tres y media.
 i) son ii) son las iii) están
- d) Cuando tengo tiempo libre, me gusta _____
 i) bailar ii) bailando iii) bailo
- e) Carlos y Susana _____ treinta y dos años.
 i) tienen ii) es iii) está
- f) Todos los sábados yo _____ tarde.
 i) levanto ii) me levanto iii) me levantas
- g) Cada sábado mi amigo visita a _____ padres.
 i) su ii) sus iii) suyo
- h) A Roberta _____ el gato.
 i) se gusta ii) le gusta iii) les gustan
- i) Soy estudiante pero durante las vacaciones estoy _____ de camarera.
 i) trabajando ii) trabajar iii) trabajo
- j) La película es _____ interesante.
 i) muy ii) mucha iii) muchos
- k) Todos los días de este mes Marisa _____ levanta a las seis y media.
 i) me ii) te iii) se
- l) ¿_____ casas hay en esta calle?
 i) Cuántas ii) Cuántos iii) qué

Q.10 **Completa el texto con las palabras del recuadro.**

3

Complete the text with the words given in the bracket.

visitarnos hospital bien prima vive ciudad

Mi _____ se llama Elsa y _____ en paris. Se ha mudado a esa _____ porque trabaja como enfermera en un _____ de allí. Habla muy _____ el francés y siempre viene a _____ en Navidad.

Q.11 **Elige las preposiciones correctas.**
Choose the correct preposition.

2

- a) Volvimos a casa de/a _____ las once para/de _____ la noche.

b) Ve a/en _____ Juan jugando con/de _____ nuestro vecino.

Q.12 **Forma las preguntas:**
Form questions:

3

a) Ellos tienen la clase a las ocho de la mañana.

¿ _____ ?

b) Yo estudio en una escuela muy grande.

¿ _____ ?

c) Nosotros trabajamos en una compañía que se llama ABC.

¿ _____ ?

Q.13 **Completa con la conjugación del verbo ser o estar.**
Complete with the conjugation of ser or estar.

10

Mis mejores amigos _____ Jorge, Miguel y Lucía, Jorge y Miguel
_____ de México y Lucía _____ de Costa
Rica. Yo _____ de Puerto Rico. Nosotros
_____ amigos en la escuela, y _____ en la
misma clase.

Mis amigos y yo _____ muy simpáticos. Ahora,
Nosotros _____ practicando para el concierto de Navidad,
Nosotros _____ muy contentos porque
_____ un concierto especial.

Annual Examination, August 2023

Bachelor of Dental Surgery – Fourth Year

CONSERVATIVE DENTISTRY AND ENDODONTICS (BDS-CONS-401)

Time: 3 hrs.

Max Marks: **80**

No. of pages: 2

Note: ● Question Paper has **TWO** parts: **PART-A** and **PART-B**. Marks are indicated against each question.

● All questions are **compulsory**. Draw the diagrams where ever necessary.

● Attempt **PART-A** and **PART-B** in the separate answer sheets.

PART-A

Q.1 Multiple choice questions:

- a) Which of the following is a common cause of endodontic treatment failure?
 - i) Overfilling of the root canal
 - ii) Underfilling of the root canal
 - iii) Inadequate cleaning and shaping of the root canal
 - iv) All of the above
- b) Which of the following instruments is used to measure the working length of a root canal?
 - i) K-file
 - ii) Apex locator
 - iii) Both a and b
 - iv) None of the above
- c) Name the instrument shown in the diagram:



- i) Williams probe
 - ii) DG-16 endodontic explorer
 - iii) CPITN probe
 - iv) Dental explorer
- d) Which of the following is a sign of a successful endodontic treatment?
 - a) No pain or discomfort
 - b) Radiographic evidence of complete healing
 - c) Normal periodontal probing depths
 - d) All of the above
 - e) Which of the following is the most commonly used irrigant in endodontic treatment?
 - i) Chlorhexidine
 - ii) Hydrogen peroxide
 - iii) Sodium hypochlorite
 - iv) EDTA

1×5

Q.2 Answer the following in brief:

- a) Discuss endodontic mishaps. [CO6][L2]
- b) Outline management of avulsion. [CO5][L1]
- c) Describe stepback with diagrams. [CO6][L2]
- d) Explain vital and non vital bleaching. [CO3][L2]
- e) Assess microbiology of periapical lesions. [CO1][L5] **5×5**

Q.3 Long questions:

PART-B

Q.4 Multiple choice questions:

- a) Bluish hue seen in amalgam fillings is due to:
 - i) Leaching of corrosive products into dentinal tubules
 - ii) No dentine support under the enamel
 - iii) Translucency of enamel
 - iv) All of the above
- b) Why do you bevel the pulp-axial line angle in a class 2 inlay cavity?
 - i) To assist withdrawal of wax pattern
 - ii) To give greater strength in that region of inlay
 - iii) To avoid a weak sharp edge in the investment mold
 - iv) None of the above
- c) What is the purpose of a matrix system in conservative dentistry?
 - i) To provide mechanical retention
 - ii) To reduce microleakage
 - iii) To increase the strength of the restoration
 - iv) To create anatomic contours
- d) Which of the following is a characteristic of the mercury component of dental amalgam?
 - i) It is completely eliminated from the body after placement
 - ii) It can cause toxicity if ingested in large amounts
 - iii) It is essential for the strength of the restoration
 - iv) It is bonded to the tooth structure during placement
- e) Which of the following materials is used to bond composite to the tooth structure?
 - i) Filler
 - ii) Light
 - iii) Adhesive resin
 - iv) Glass ionomer cement

1×5

Q.5 Answer the following in brief:

- a) Discuss etiology and management of abrasion. [CO3][L2]
- b) Describe casting defects. [CO2][L2]
- c) Outline common problems during composite restoration. [CO3][L1]
- d) Describe adhesion. [CO3][L2]
- e) Analyze polymerization shrinkage. [CO2][L4] **5×5**

Q.6 Long question:

Discuss about cavity designs in inlay restoration.

[CO4][L2] 10

Annual Examination, August 2023
Bachelor of Dental Surgery – Third Year
GENERAL MEDICINE (BDS-GEME-301)

Time: 3 hrs.
80

Max Marks:

No. of pages:

2

- Note: ● Question paper has **TWO** parts: **PART-A** and **PART-B**. Marks are indicated against each question.
- All questions are **compulsory**. Draw the diagrams where ever necessary.
 - Attempt the **PART-A** and **PART-B** in the separate answer sheets.

PART-A

Q.1 Multiple choice questions:

- a) Which about HIV is not correct?
 - i) Caused by RNA virus
 - ii) Commonest mode of transmission is through sexual intercourse
 - iii) CD4 count is affected
 - iv) Montoux test is diagnostic
- b) Which one of these drugs does not cause gingival hyperplasia?
 - i) Phenytoin
 - ii) Nifedipine
 - iii) Cyclosporin
 - iv) Rifampicin
- c) Which one of these is not a part of H.pylori eradication regime?
 - i) Pantoprazole
 - ii) Clarithromycin
 - iii) Clindamycin
 - iv) Metronidazole
- d) Which one of these is not a cause of cirrhosis of liver?
 - i) Wilson's disease
 - ii) Primary biliary cirrhosis
 - iii) Viral hepatitis A
 - iv) Alpha-1 anti trypsin deficiency
- e) Which is not true about hypocalcemia?
 - i) Caused by hyperparathyroidism
 - ii) Tetany is present
 - iii) Chvostek's sign can be demonstrated
 - iv) Convulsions can occur

1×5

Q.2 Write short notes on:

- a) C/F of cushing's syndrome.
- b) Peripheral signs of AR.
- c) Herpes zoster.
- d) Secondary hypertension.
- e) Complications of uncontrolled diabetes.

5×5

Q.3 Discuss acute myocardial infarction in detail.

10

PART-B

Q.4 Multiple choice questions:

- a) Which is not a correct statement about diphtheria?
 - i) Caused by corynebacterium diphtheriae
 - ii) There is formation of pseudo membrane at the site of infection
 - iii) Bull's neck diphtheria is a serious concern
 - iv) Ciprofloxacin is the drug of choice
- b) Which one of these is not a cause for tachyarrhythmia?
 - i) AF
 - ii) VT

iii) CHB

iv) SVT

- c) Which one of these is not true about CPR?
- i) Given to patient with sudden cardiac arrest.
 - ii) Given to patient with vasovagal syncope.
 - iii) Mouth to mouth breathing is also given.
 - iv) A 30:2 ratio of chest compression and mouth to mouth breathing is chosen.
- d) Which is not seen in pellagra?
- i) Diarrhoea
 - ii) Dermatitis
 - iii) Magenta tongue
 - iv) Dementia
- e) Which one of these drugs is avoided in a patient of seizure disorder?
- i) Ceftriaxone
 - ii) Amlodepin
 - iii) Ethambutol
 - iv) Ofloxacin.

1×5

Q.5 **Write short notes on:**

- a) Jacksonian march.
- b) Nephrotic syndrome.
- c) Haemophilia.
- d) HAART.
- e) Calcium metabolism.

5×5

Q.6 Define and classify epilepsy. Discuss the management of status epilepticus.

10

Annual Examination, August 2023
Bachelor of Dental Surgery – Second Year
GENERAL PATHOLOGY (BDS-GEPA-201)

Time: 3 hrs.

Max Marks: **80**
No. of pages: 2

Note: ● Question Paper has **TWO** parts: **PART-A** and **PART-B**. Marks are indicated against each question.

● All questions are **compulsory**. Draw the diagrams where ever necessary.

● Attempt **PART-A** and **PART-B** in the separate answer sheets.

PART-A

Q.1 Multiple choice questions:

- a) Which of the following is NOT a sign of acute inflammation? (CO2,BL2)
i) Calor ii) Rubor
iii) Loss of function iv) Pallor
- b) Which of the following is feature of Malignant tumour? (CO3,BL1)
i) Localised ii) Encapsulated
iii) Metastasis iv) Metaplasia
- c) ATROPHY is: (CO2,BL2)
i) Increased size ii) Increased cellularity
iii) Both of the above iv) None of the above
- d) Vitamin D deficiency causes. (CO3,BL3)
i) Rickets ii) Scurvy
iii) Night blindness iv) None of the above
- e) Most common cause of anemia in India is: (CO4,BL5)
i) Aplastic anemia ii) Megaloblastic anemia
iii) Iron deficiency anemia iv) Anemia of chronic inflammation **1×5**

Q.2 Write short notes on:

- a) Differentiate between dry and wet gangrene. (CO2,BL4)
b) Pathogenesis of oedema. (CO3,BL4)
c) Routes of metastasis. (CO5,BL2)
d) Classification of anemia. (CO4,BL1)
e) Granulomatous inflammation. (CO5,BL1) **5×5**

Q.3 Define 'inflammation'. Write the five signs of acute inflammation. Write in detail the vascular events in acute inflammation. (CO6,BL3) **10**

PART-B

Q.4 Multiple choice questions:

- a) Which of the following is hemolytic anemia? (CO3,BL2)
i) Iron deficiency anemia ii) Aplastic anemia
iii) Sickle cell anemia iv) All of the above.
- b) Reed Sternberg cell is a feature of: (CO4,BL5)
i) Non Hodgkins lymphoma ii) Hodgkins lymphoma
iii) Acute Lymphoblastic leukemia iv) Chronic myeloid leukemia.
- c) An example of fat embolism is: (CO6,BL1)
i) Fracture of long bone ii) Deep vein thrombosis
iii) Myocardial infarction iv) None of the above.
- d) Which of the following is an example of granulomatous disease? (CO5,BL2)
i) Tuberculosis ii) AIDS

- iii) Systemic lupus erythematosus iv) Allergy
e) Which of the following is NOT found in Tubercular granuloma? (CO3,BL2)
i) Langhans Giant cell ii) Lymphocyte
iii) Epithelial cell iv) Epithelioid cell **1×5**

Q.5 Write short notes on:

- a) Lab diagnosis of Iron deficiency anemia. (CO6,BL6)
b) Chronic myeloid leukemia. (CO5,BL4)
c) Pathogenesis of diabetes mellitus. (CO3,BL2)
d) Leukoplakia. (CO2,BL1)
e) Osteoclastoma (CO1,BL1) **5×5**

Q.6 Define 'necrosis'. Enumerate various types of necrosis with ONE example of each.
Write the difference between necrosis and apoptosis. (CO1,BL5) **10**

Annual Examination, August 2023
Bachelor of Dental Surgery – Third Year
GENERAL SURGERY (BDS-GESU-301)

Time: 3 hrs.

Max Marks: **80**

No. of pages: 2

Note: ● Question Paper has **TWO** parts: **PART-A** and **PART-B**. Marks are indicated against each question.

● All questions are **compulsory**. Draw the diagrams where ever necessary.

● Attempt the **PART-A** and **PART-B** in the separate answer sheets.

PART-A

Q.1 Multiple choice questions:

- a) Hemophilia is identified by: (CO4,BL3)
- i) Most common type of Hemophilia A
 - ii) Acquired hemophilia could be associated with autoimmune disorders, pregnancy, liver diseases, vit K deficiency and DIC (Disseminated intravascular coagulation)
 - iii) Males are more commonly affected than females in both hemophilia A and B.
 - iv) All of the above.
- b) Examples of indications for a biopsy could be: (CO4,BL2)
- i) Any lesion persisting for more than two weeks with no apparent aetiology
 - ii) Any inflammatory lesion not responding to treatment after 10-14 days
 - iii) Persistent hyperkeratotic changes in surface tissues.
 - iv) All of the above.
- c) Ludwig's angina is identified by: (CO2, BL5)
- i) Caused by virulent streptococcal infection associated with anaerobic organisms.
 - ii) Could be associated with carcinoma of the floor of the mouth and/or Diabetes mellitus, and patients on chemotherapy.
 - iii) Poor dental hygiene, Dental caries or a recent dental treatment like tooth extraction could be the precipitating factor.
 - iv) All of the above.
- d) Examples of complication due to injuries could be: (CO3,BL2)
- i) Infections
 - ii) Keloid formation
 - iii) Deformity and disfigurement
 - iv) All of the above
- e) Examples of an arterial bleed is: (CO1, BL2)
- i) Continuous flow and dark colored blood
 - ii) Spurting of bright red blood.
 - iii) Only slow ooze
 - iv) All of the above
- 1×5**

Q.2 Answer the following in brief:

- a) Classify different types of obstructive shock, and write what you know about tension pneumothorax. (CO3,BL5)
- b) Categorize different levels of cervical lymph nodes. (CO4,BL4)
- c) Outline the clinical features of tetanus. (CO1,BL2)
- d) Describe what you know about erysipelas. (CO1,BL1)
- e) Outline what you know about a carbuncle. (CO4,BL4) **5×5**

Q.3 Classify different types of wound healing. Describe in a tabular form the differences between a hypertrophy scar and a keloid. (CO4,BL3) **10**

PART-B

Q.4 Multiple choice questions:

- a) Neurogenic shock is not identified by: (CO4,BL1)
i) Pale and cool skin
ii) Tachycardia with features of shock
iii) Bradycardia with features of shock
iv) Decreased urine output..
- b) Examples of complication due to injuries could be: (CO4,BL2)
i) Infections
ii) Keloid formation
iii) Deformity and disfigurement
iv) All of the above.
- c) Interpret which one of the following statement is correct: (CO4,BL2)
i) Both trigeminal and facial nerves are purely motor nerve.
ii) Interictal numbers is an important feature of 7th nerve palsy.
iii) Unilateral LMN palsy of 7th nerve given rise to bilateral symptoms and signs.
iv) Bilateral trigeminal nerve palsy in a young person could be a sign of multiple sclerosis.
- d) Aetiology of Secondary haemorrhage is primarily identified by: (CO4,BL1)
i) Slippage of ligature
ii) Primarily due to infection after around 7 days post-surgery
iii) Occurs within 24 hours of post-surgery
iv) All of the above
- e) SIRS (systemic inflammatory response syndrome) is recognised by: (CO4, BL2)
i) Temp > 38/<36 degree celsius
ii) Tachycardia >90/min and Tachypnoea > 20/min
iii) TLC > 12,000/<4000 / cmm of blood or > 10% band cells in peripheral smear
iv) All of the above. **1×5**

Q.5 Answer the following in brief:

- a) Categorize lateral neck swellings and write what you know about cystic hygroma. (CO4,BL4)
- b) Outline the aetiology, clinical features and management of anaphylaxis. (CO1,BL1)
- c) Describe what you know about actinomycosis. (CO4,BL4)
- d) Outline the features of the Marjolin's ulcer. (CO1,BL1)
- e) Summarize what you know about the differences between troisier's sign, trousseus sign, and trousseu's syndrome. (CO3,BL3) **5×5**

Q.6 Classify different zygomatic-maxillary complex fractures. Describe the aetiology, clinical features, diagnosis and management of these fractures. (CL4,BL4) **10**

Annual Examination, August 2023
Bachelor of Dental Surgery – First Year
**HUMAN ANATOMY, EMBRYOLOGY, HISTOLOGY AND MEDICAL
GENETICS (BDS-HUAN-101)**

Time: 3 hrs.

Max Marks: **80**

No. of pages: 2

Note: ● Question Paper has **TWO** parts: **PART-A** and **PART-B**. Marks are indicated against each question.

● All questions are **compulsory**. Draw the diagrams where ever necessary.

● Attempt **PART-A** and **PART-B** in the separate answer sheets.

PART-A

Q.1 Multiple choice questions:

- a) All of the following muscles of palate are supplied by pharyngeal plexus except:
- | | |
|--------------------|-----------------------------|
| i) Palatoglossus | ii) Palatopharyngeus |
| iii) Tensor palati | iv) Levator <i>palatini</i> |
- b) All of the following structures pass through internal acoustic meatus except:
- | | |
|------------------------|-------------------------|
| i) 7th cranial nerve | ii) 8th cranial nerve |
| iii) 9th cranial nerve | iv) Labrynthine vessels |
- c) All of the following nerves carry taste sensation except:
- | | |
|-------------------|---------------------------|
| i) Vagus nerve | ii) Hypoglossal nerve |
| iii) Facial nerve | iv) Glosopharyngeal nerve |
- d) All of following sinuses open in middle meatus except:
- | | |
|---------------------|----------------------------|
| i) Sphenoidal sinus | ii) Maxillary sinus |
| iii) Frontal Sinus | iv) Middle ethmoidal sinus |
- e) All of the muscles are derived from the second pharyngeal arch except:
- | | |
|-----------------------------------|------------------|
| i) Styloheid | ii) Stapedius |
| iii) Muscles of facial expression | iv) Styloglossus |
- 1×5**

Q.2 Answer the following in brief:

- a) Primitive streak.
b) Blood supply of long bone.
c) Ansa cervicalis.
d) Innervation of tongue.
e) Otic ganglion.

5×5

Q.3 Classify 'Epithelium'. Draw a labelled diagram of each type.

10

PART-B

Q.4 Multiple choice questions:

- a) All of the following are layers of the scalp except:
- | | |
|---------------------------|-----------------|
| i) Skin | ii) Aponeurosis |
| iii) Loose areolar tissue | iv) Endosteum |
- b) All of the following structures pass through superior orbital fissure except:
- | | |
|-----------------------------|-----------------------|
| i) Superior ophthalmic vein | ii) Nasociliary nerve |
| iii) Optic nerve | iv) Frontal nerve |
- c) All of the following nerves carry secretomotor fibres except:
- | | |
|-----------------------------|-----------------------------|
| i) Nerve of pterygoid canal | ii) Inferior petrosal nerve |
| iii) Chorda tympani | iv) Inferior alveolar nerve |
- d) Choose the incorrect statement regarding mandibular nerve:

- i) It passes through foramen ovale
 - ii) It is a branch of maxillary nerve
 - iii) It has anterior and posterior divisions
 - iv) It is present in infratemporal fossa
- e) Choose the correct statement regarding external carotid artery:
- i) It arises at the level of superior border of thyroid cartilage
 - ii) Occipital artery and posterior auricular arteries are its branches
 - iii) It has no branches in the neck
 - iv) Inferior thyroid artery is one of the branches of ECA. **1×5**

Q.5 Write short notes on the following:

- a) Turner syndrome.
- b) Fertilization.
- c) Lingual nerve.
- d) Investing layer of deep cervical fascia.
- e) Maxillary sinus. **5×5**

Q.6 Describe articular facets, ligaments, relations, movements and applied anatomy of *TM* joint. **10**

PART-B

Q.4 Multiple choice questions:

- A. Cryptococcosis is a disease of which microorganism? (L2,CO5)
- | | |
|---------------|-----------|
| i) Bacteria | ii) Fungi |
| iii) Protozoa | iv) Virus |
- b) A type of cell culture that can reproduce for an extended number of generations and is used to support viral replication is a:
- | | |
|---------------------------|----------------------------------|
| i) Primary cell line | ii) Diploid fibroblast cell line |
| iii) Continuous cell line | iv) Organ culture |
- c) HIV virus has a protein coat and a genetic material which is? (L3,CO4)
- | | |
|--------------------------|-------------------------|
| i) Double stranded DNA | ii) Single stranded DNA |
| iii) Double stranded RNA | iv) Single stranded RNA |
- d) Name the selective media for *Neisseria gonorrhoeae*? (L1,CO3)
- | | |
|-------------------------------|----------------------------|
| i) Lowenstein Jenson's medium | ii) Loeffler's serum slope |
| iii) Thayer Martin agar | iv) Mueller Hinton agar |
- e) A 40 years old patient who has clinical symptoms pulmonary tuberculosis for the past two months. The chest x-ray examination revealed a typical feature of tuberculosis infection. A photochromogenic (orange pigment when exposed to UV light) acid-fast rod bacterium was isolated from the sputum sample. The identified bacteria is: (L3,CO5)
- | | |
|------------------------------------|---------------------------------------|
| i) <i>Mycobacterium avium</i> | ii) <i>Mycobacterium tuberculosis</i> |
| iii) <i>Mycobacterium kansasii</i> | iv) <i>Mycobacterium leprae</i> |
- 1×5**

Q.5 Answer the following in brief:

- a) Write briefly on actinomycosis and add a note on 'its laboratory diagnosis'. (L3,CO3)
- b) Describe the laboratory diagnosis of infections caused by HBV. (L3,CO4)
- c) Describe pathogenicity and laboratory diagnosis of infections caused by *Staphylococcus aureus*. (L5,CO4)
- d) Describe the life cycle and laboratory diagnosis of kala Azar. Justify your answer with diagrams and label them. (L5,CO5)
- e) Describe briefly mycetoma and add a note on 'its laboratory diagnosis'. Support your answers with a diagram. (L5,CO3) **5×5**

Q.6 Long questions:

Classify 'mycobacterium'. Write in detail the laboratory diagnosis of pulmonary and extra pulmonary tuberculosis. (L4,CO5) **10**

- a) Sunburst appearance on radiograph is seen in:
- i) Osteosarcoma
 - ii) Osteofibroma
 - iii) Osteomalacia
 - iv) Osteopetrosis
- b) Hypoplastic defects in the enamel appears in radiograph as:
- i) Brown spots running horizontally
 - ii) Sclerotic areas over the surface of tooth
 - iii) Radiolucent areas
 - iv) Radiopaque areas
- c) An oval radiolucent area between the apices of maxillary incisors is:
- i) Nasopalatine foramen
 - ii) Lingual Foramen
 - iii) Nasal fossa
 - iv) Incisive Canal
- d) In which radiograph apical root fracture can be seen:
- i) Intraoral periapical radiograph
 - ii) Occlusal radiograph
 - iii) Bitewing radiograph
 - iv) Orthopantomogram
- e) The presence of pulp stones on the radiograph of a tooth indicates the presence of:
- i) Acute pulpitis
 - ii) Acute pulpalgia
 - iii) Chronic periodontitis
 - iv) None of the above
- 1×5**

Q.5 Write short notes on:

- a) Garre's osteomyelitis.
- b) Collimation.
- c) SLOB rule.
- d) SMV view.
- e) Grids

5×5

Q.6 Long questions:

Describe in detail principle of panoramic radiography. Write in detail about indications, advantages and disadvantages of panoramic radiography.

10

- iii) Represents coalescing of dentin tubules
- iv) None of the above
- d) Development of the first permanent molar is initiated at:
 - i) Birth
 - ii) Fourth month, in utero
 - iii) 6 years of age
 - iv) None of the above
- e) What is overjet?
 - i) Horizontal overlap of maxillary and mandibular anteriors
 - ii) Vertical overlap of maxillary and mandibular anteriors
 - iii) Buccal overlap of maxillary and mandibular anteriors
 - iv) Buccal overlap of maxillary and mandibular posteriors

1×5

Q.5 Answer the following in brief:

- a) Illustrate with diagrams principal fibers of periodontal ligament.
- b) Describe HERS.
- c) Illustrate with diagrams and discuss the stages of life cycle of Ameloblasts.
- d) Enumerate and discuss the functions of pulp.
- e) Discuss formation of saliva.

5×5

Q.6 Long questions:

Illustrate with diagrams and describe morphology of permanent mandibular 1st molar from all aspects.

10

- a) Unicystic ameloblastoma presenting as a well-circumscribed radiolucency surrounding the crown of an unerupted/impacted tooth is most likely to be diagnosed as: (BL-3, CO-1)
- i) Conventional ameloblastoma ii) Unicystic ameloblastoma
 iii) Squamous odontogenic tumor iv) Dentigerous cyst
- b) Trisomy 21 syndrome is also recognised as _____ syndrome. (BL-1, CO-4)
- i) Down ii) Apert
 iii) Klinefelter iv) Ehlers-Danlos
- c) The major antigens associated with cicatricial pemphigoid are _____ and Laminin 5. (BL-4, CO-2)
- i) Bullous pemphigoid antigen 2 ii) Bullous pemphigoid antigen 1
 iii) Cicatricial pemphigoid antigen iv) Desmoglein
- d) Cretinism and myxedema are related to the hyposecretion of: (BL-5, CO-1)
- i) Thyroid hormones ii) Growth hormones
 iii) Adrenal medullary hormones iv) Parathormone
- e) Choose the lesion in which exfoliative cytology is NOT indicated: (BL-5, CO-6)
- i) Fibroma ii) Squamous cell carcinoma
 iii) Pemphigus vulgaris iv) Sickle cell anemia
- 1×5**
1×5

Q.5 Answer the following in brief:

- a) Describe in detail about Adenomatoid Odontogenic Tumor. (BL-2,CO-1)
- b) Name the subtypes of Actinomycosis. Write about them in detail. (BL-1,CO1)
- c) Classify bitemarks and explain their importance in forensic odontology. (BL-4,CO-5)
- d) Summarise the developmental anomalies associated with tongue. (BL-2,CO-1)
- e) Explain the radiographic features and histopathology of Odontogenic Keratocyst. (BL-2, CO-3) **5×5**

Q.6 Classify salivary gland tumors. Explain in detail the etiology, clinical features and histopathology of Pleomorphic Adenoma. (BL-4, CO-6) **10**

Annual Examination, August 2023
Bachelor of Dental Surgery – Second Year
FORENSIC ODONTOLOGY (BDS-ORPA-OE-001)

Time: 3 hrs.

Max Marks: **100**

No. of pages: 2

- Note: ● Question paper has **TWO** parts: **PART-A** and **PART-B**. Marks are indicated against each question.
- All questions are **compulsory**. Draw the diagrams where ever necessary.
- Attempt **PART-A** and **PART-B** in the separate answer sheets.

PART-A

Q.1 Multiple choice questions:

- a) Neonatal line determines: (BL-3, CO-1)
- i) The presence in the teeth and in the long bones of a skeleton
 - ii) Dental calculus
 - iii) Arrested growth during infant and child enamel formation
 - iv) Premature loss of teeth
 - v) Radiographic defect
- b) Lost personhood is associated with which of the following conditions: (BL-4,CO-2)
- i) Decomposition 1
 - ii) Mutilation
 - iii) Burning
 - iv) Burial
 - v) All of these
- c) Gender identification can be best determined by which of the following tooth. (BL-3,CO-2)
- i) Canine
 - ii) Premolar
 - iii) Central incisor
 - iv) Third molar
- d) Which feature amongst the following predicts the age of human skeleton at about 25 years. (BL-3,CO-2)
- i) Beginning fusion of all of the epiphyses of the post cranial skeleton
 - ii) Fusion of a suture on the base of a skull
 - iii) All of the teeth, including the 3rd molars, are extensively worn
 - iv) The 3 individual bones of the innominate (ischium, pubis, and Ilium) fuse in the hip joint socket
 - v) None of the above
- e) A boy has 20 permanent teeth and 8 temporary teeth. Calculate his age: (BL-3, CO-4)
- i) 9 years
 - ii) 10 years
 - iii) 11 years
 - iv) 12 years
 - v) 13 years
- 1×5**

Q.2 Answer the following in brief:

- a) Review Demirjian's method of radiographic age estimation. (BL-2, CO-3)
- b) Compare and contrast between cheiloscopy and palatoscopy. (BL-4, CO-4)
- c) Illustrate methods of denture marking. (BL-3, CO2)
- d) Discuss concept of chain of custody. (BL-2, CO-5)
- e) Create a forensic report. (BL-5, CO-4) **6×5**

Q.3 Long questions:

Define 'forensic odontology'. Assess the roles and responsibilities of a forensic odontologist. (BL-6, CO-5) **15**

PART-B

Annual Examination, August 2023
Bachelor of Dental Surgery – Fourth Year
ORAL AND MAXILLOFACIAL SURGERY
(BDS-ORSU-401)

Time: 3 hrs.

Max Marks: **80**

No. of pages: 8

Note: ● Question Paper has **TWO** parts: **PART-A** and **PART-B**. Marks are indicated against each question.

● All questions are **compulsory**. Draw the diagrams where ever necessary.

● Attempt the **PART-A** and **PART-B** in the separate answer sheets.

Q.1 Multiple choice questions:

- a) A periapical infection of a mandibular third molar may spread by direct extension to the: (BL-1 CO-1 PO-1)
- | | |
|------------------------------|--------------------------|
| i) Parapharyngeal space. | ii) Submandibular space. |
| iii) Pterygomandibular space | iv) Submental space |
- b) Movements are possible with bilateral sagittal split osteotomy except: (BL-1 CO-1 PO-1)
- | | |
|--------------------------|----------------|
| i) Anterior advancements | ii) Set back |
| iii) Rotation | iv) Transverse |
- c) Hanging drop appearance on radiograph: (BL-1 CO-1 PO-1)
- | | |
|----------------------|---------------|
| i) Blow out fracture | ii) Antrolith |
| iii) Nasal polyp | iv) Zygomatic |
- d) Following a local anesthetic injection, anesthetic effects will disappear and reappear in a definite order. Which sensation disappears first?(BL-1 CO-1 PO-1)
- | | |
|--------------------|----------|
| i) Touch | ii) Warm |
| iii) Deep pressure | iv) Pain |
- e) Le Fort I or Guerin fracture is a: (BL-1 CO-1 PO-1)
- | |
|--|
| i) Fracture of the zygomatic arch. |
| ii) Horizontal fracture of the maxilla. |
| iii) Fracture of the malar complex involving the floor of the orbit. |
| iv) Pyramidal fracture of the maxilla. |

1×5

Q.2 Answer the following in brief:

- a) What do you understand by local anaesthetic toxicity? (BL-1 CO-1 PO1)
- b) Discuss the management of horizontally unfavourable angle fractures. (BL-1CO-2PO-1)
- c) A male adult patient presented with moderate fever, severe trismus and slight extra oral edema beneath the angle of the mandible are observed. Intra orally, edema of the soft palate of the affected side is present, as is displacement of the uvula and lateral pharyngeal wall, while there is difficulty in swallowing. Mandibular 3rd molar was grossly infected and there was pus discharge from it. Write diagnosis of case with its treatment. (BL-4CO-2PO-3)
- d) Discuss principles of elevators. (BL-1 CO-1 PO-1)
- e) Summarize protocol of osteoradionecrosis. (BL-1 CO-1 PO-1) **5×5**

Q.3 An 8-year-old girl comes with an asymmetrical jaw line; on examination, the chin is deviated to the affected side on opening her mouth, the patient has cross bite on ipsilateral side and class II malocclusion on the affected side. What is your diagnosis for this? Enumerate diseases of TMJ. Describe the disease. (BL-2 CO-4 PO-3) **10**

PART-B

Q.4 Multiple choice questions:

- a) Most common complication of rheumatoid arthritis involving TMJ is: (BL-1 CO-1 PO-1)
- | | |
|----------------------------|-----------------|
| i) Ankylosis | ii) Subluxation |
| iii) Recurrent dislocation | iv) MPDS |
- b) In lingual split technique the instrument used to cut the tooth is: (BL-1 CO-1 PO-1)
- | | |
|------------------------|------------------|
| i) Periosteal elevator | ii) Osteotome |
| iii) Chisel | iv) Surgical bur |
- c) Which one is treated with Carnoy's solution after enucleation? (BL-1 CO-1 PO-1)
- | |
|--|
| i) OKC |
| ii) Mural Ameloblastoma |
| iii) Aneurysmal bone cyst |
| iv) Odontogenic myxoma drop appearance on radiograph |
- d) Hemlich procedure" is for: (BL-1 CO-1 PO-1)
- | |
|---|
| i) Removing foreign body airways obstruction. |
| ii) Opening the mouth |
| iii) Maintain the breathing. |
| iv) For expired air resuscitation. |
- e) Hayton' s Williams forceps is used for: (BL-1 CO-1 PO-1)
- | | |
|------------------------|-------------------------|
| i) Coronoid fractures | ii) Zygomatic fractures |
| iii) Maxilla fractures | iv) Nasal fractures |

1×5

Q.5 Answer the following in brief:

- a) A female adult patient underwent extraction of impacted mandibular 3 molar 2 days back. Today, she presented with severe throbbing pain in the same region. She is taking prescribed medicines as per instruction of the doctor, but the pain is persistent. There is no associated swelling, but bare bone can be seen clinically. What is the diagnosis and its treatment? (BL-4 CO-2 PO-3)
- b) Enumerate pre prosthetic surgical procedures. (BL-1 CO-1 PO-1)
- c) What do you understand by Partsch I procedure. (BL-1 CO-2 PO-1)
- d) Discuss surgical management of ameloblastoma. (BL-3 CO-1 PO-3)
- e) What is sialography? (BL-1 CO-1 PO-1) **5×5**

Q.6 Patient comes to you with a history of RTA. On examination there is swelling and edema around the right eye with subconjunctival hemorrhage and numbness over the right cheek area. What type of fracture do you think this is? Write in detail about its clinical features, diagnostic methods and management of such a fracture. (BL-2 CO-4 PO-3) **10**

Annual Examination, August 2023
Bachelor of Dental Surgery – Fourth Year
ORTHODONTICS AND DENTOFACIAL ORTHOPEDICS
(BDS-ORTH-401)

Time: 3 hrs.

Max Marks: **80**

No. of pages: 2

Note: ● Question Paper has **TWO** parts: **PART-A** and **PART-B**. Marks are indicated against each question.

- All questions are **compulsory**. Draw the diagrams where ever necessary.
- Attempt **PART-A** and **PART-B** in the separate answer sheets.

PART-A

Q.1 Multiple choice questions:

- a) Line of occlusion in the lower arch as defined by Edward H angle is:
 - i) Line that passes through the central fossa in the lower arch.
 - ii) Line that passes through the palatal cusp in the lower arch.
 - iii) Line that passes lingual to incisors in the lower arch.
 - iv) Line that passes through the buccal cusps and the incisal edges in the lower arch.
- b) The head size holds what proportion of total body size in adulthood as shown in the cephalocaudal gradient of growth:
 - i) 30%
 - ii) 12%
 - iii) 50%
 - iv) 20%
- c) To camouflage for a skeletal class III base, the natural compensation in teeth that occurs is:
 - i) Lower proclined, upper retroclined.
 - ii) Lower retroclined, upper proclined.
 - iii) Both lower and upper are retroclined.
 - iv) Both lower and upper are proclined.
- d) A large tongue in a patient could lead to:
 - i) Mandibular prognathism.
 - ii) Mandibular constriction.
 - iii) Mandibular retrognathism.
 - iv) Maxillary constriction.
- e) The width of the central incisor should be what percentage of its total height
 - i) 60%
 - ii) 70%
 - iii) 80%
 - iv) 90%

1×5

Q.2 Write short notes on:

- a) Describe the various means to reinforce anchorage to prevent mesial migration of molars during retraction.
- b) Explain the consequences when heavy forces are applied during orthodontic tooth movement.
- c) Write about the various appliances used to produce expansion of the maxilla.
- d) Uses of Temporary Anchorage devices in various clinical situations.
- e) A 7 year old girl reports to the OPD with a habit of thumb sucking. Describe the management of the case.

5×5

- Q.3 Long questions:
Write in detail about extra oral examination in orthodontics. Cover both frontal and profile examination and draw appropriate diagrams. **10**

PART-B

- Q.4 Multiple choice questions:
- a) If a removable appliance is worn less than 4 to 6 hours per day, it will produce no orthodontic effects because:
 - i) Second messenger (cAMP) appear after about 4 hours of sustained pressure.
 - ii) Primary messengers appear after about 4 hours of sustained pressure.
 - iii) Tertiary messengers appear after about 4 hours of sustained pressure.
 - iv) Tooth movement is not correlated with chemical messengers.
 - b) The point at which permanent deformation first observed is:
 - i) Proportional limit.
 - ii) Yield strength.
 - iii) Ultimate strength.
 - iv) Failure point.
 - c) Petit type facemask is used:
 - i) Class I Malocclusion.
 - ii) Class II malocclusion.
 - iii) Class III malocclusion.
 - iv) Class I malocclusion with crowding.
 - d) The average leeway space available in each half of the maxilla is approximately:
 - i) 0.9mm
 - ii) 2.9mm
 - iii) 4mm
 - iv) 6.9mm
 - e) The Y axis in cephalometric is used to analyze the:
 - i) Maxillary growth.
 - ii) Mandibular growth.
 - iii) The inclination of palatal plane.
 - iv) The cranial base angle. **1×5**
- Q.5 Answer the following in brief:
- a) Recent advances in orthodontics.
 - b) How would you select an ideal case for functional appliance therapy from the OPD?
 - c) How do you quantify the amount of crowding with the help of orthodontic study models?
 - d) Difference between rapid and slow maxillary appliance.
 - e) What are the consequences of malocclusion? **5×5**

Q.6 Long questions:

A 12 year old class II div1 malocclusion girl, with SNB of 74° and SNA of 82° , reports to your clinic with an overjet of 7mm and a deep bite. What is your diagnosis? Which appliance would you deliver to treat the malocclusion? Write in detail about the clinical management of the case. **10**

Annual Examination, August 2023
Bachelor of Dental Surgery – Fourth Year
PEDODONTICS AND PREVENTIVE DENTISTRY (BDS-PEDO-401)

Time: 3 hrs.

Max Marks: **80**

No. of pages: 2

Note: ● Question paper has **TWO** parts: **PART-A** and **PART-B**. Marks are indicated against each question.

● All questions are **compulsory**. Draw the diagrams where ever necessary.

● Attempt **PART-A** and **PART-B** in the separate answer sheets.

PART-A

Q.1 Multiple choice questions:

- a) Diffusion hypoxia is associated with:
i) Intravenous midazolam sedation ii) Diazepam sedation
iii) Meperidine sedation iv) N₂O sedation
- b) Before the placement of pit and fissure sealant the teeth are polished with fluoride-free paste because the fluoride)
i) Makes enamel difficult to etch
ii) Forms impervious coat on the surface
iii) Inhibits the polymerization of the resin
iv) Interferes with the retention of sealant
- c) When Ca(OH)₂ is applied directly to the pulp tissue there occurs:
i) Inflammation of the adjacent pulp and necrosis of the contiguous tissue
ii) Necrosis of the adjacent pulp and inflammation of the contiguous tissue
iii) Immediate Barrier formation of reparative dentin
iv) Broad zone of fixation
- d) Pulp revascularization or regeneration is recommended in situations with:
i) Vital pulp and open apex
ii) Non-vital pulp and a wider open apex
iii) Non-vital pulp and closed apex
iv) Non-vital and infected pulp with prior instrumentation and closed apex
- e) Arch criminal in dental caries is:
i) Sucrose ii) Glucose
iii) Complex carbohydrates iv) Xylitol

1×5

Q.2 Answer the following in brief:

- a) Knutson technique
b) Difference between child and adult gingiva and its clinical implications
c) Stainless steel crowns
d) Class II cavity preparation and modifications in primary mandibular molars
e) Ugly duckling stage

5×5

Q.3 Classify traumatic injuries to teeth and supporting structures. Write the treatment protocol for the management of an avulsed permanent central incisor in an 8-year-old child reporting to the dental clinic within 20 minutes of Trauma. **10**

PART-B

Q.4 Multiple choice questions:

- a) Contingency management involves the:
i) Presentation and withdrawal of reinforcers
ii) Desensitization

- iii) Use of Euphemisms
- iv) Voice control
- b) The behaviour shaping modelling technique is based upon:
 - i) Social learning principle
 - ii) Distraction and involvement
 - iii) Cognitive development of the child
 - iv) Signal system
- c) Compound cavity refers to a cavity involving:
 - i) One surface
 - ii) Two surfaces
 - iii) More than two surfaces
 - iv) Cusp tips and incisal edge
- d) Leeway space in maxilla and mandible is approximate:
 - i) 1.8mm in Maxilla and 3.4mm in mandible
 - ii) 3.4mm in Maxilla and 1.8mm in mandible
 - iii) 18mm in Maxilla and 34mm in mandible
 - iv) 38mm in Maxilla and 14mm in mandible
- e) Fourth factor added to the pedodontic triangle by Dr GZ Wright is:
 - i) Time.
 - ii) Society.
 - iii) Caretaker.
 - iv) Education.

1×5

Q.5 Write short notes on:

- a) A 9-year-old girl reported to a dentist with forwardly placed upper teeth, a short upper lip and inflamed gingiva. Diagnose the oral habit and write its management.
- b) Freud's psychosexual theory.
- c) Obturating materials in primary teeth.
- d) Management of premature exfoliation of primary mandibular molars bilaterally.
- e) Dental management of a child with early childhood caries.

5×5

Q.6 Enumerate various non-pharmacological behaviour management techniques available for the management of uncooperative children in the dental clinic. Discuss desensitization in brief.

10

d) **Electronic instrument used to measure gingival crevicular fluid is:**

- i) **Perlcheck**
- ii) **Periotemp**
- iii) **Perioscan**
- iv) **Periotron**

e) **In established lesion of gingivitis the predominant cells are:**

- i) **Plasma cells**
- ii) **PMN's**
- iii) **Lymphocytes**
- iv) **Macrophages**

1×5

Q.5 Answer the following in brief:

- a) Classify types of guided tissue regeneration membrane.
- b) Discuss the management of furcation involvement.
- c) What are the factors that determine prognosis?
- d) Write the clinical and radiographic changes of TFO.
- e) Explain the rationale of periodontal therapy.

5×5

Q.6 Define 'gingival enlargement'. Explain the clinical and histo-pathological features of drug induced gingival overgrowth (DIGO). **10**

Annual Examination, August 2023
Bachelor of Dental Surgery – Second Year
GENERAL AND DENTAL PHARMACOLOGY AND THERAPEUTICS
(BDS-PHAR-201)

Time: 3 hrs.

Max Marks: **80**

No. of pages: 2

Note: ● Question Paper has **TWO** parts: **PART-A** and **PART-B**. Marks are indicated against each question.

● All questions are **compulsory**. Draw the diagrams where ever necessary.

● Attempt the **PART-A** and **PART-B** in the separate answer sheets.

PART-A

Q.1 Multiple choice questions:

a) When one drug increases the action of the other drug, they are said to be:

- | | |
|------------------------|-----------------------|
| i) Synergistic | ii) Antagonistic |
| iii) Both of the above | iv) None of the above |

b) Which of the following is a beta blocker?

- | | |
|-----------------|-----------------|
| i) Terbutaline | ii) Salbutamol |
| iii) Adrenaline | iv) Propranolol |

c) Superinfection may occur with:

- | | |
|-------------------|---------------------|
| i) Penicillin | ii) Tetracyclines |
| iii) Sulfonamides | iv) Aminoglycosides |

d) Which is a beta-lactamase inhibitor?

- | | |
|--------------------|----------------|
| i) Clavulanic acid | ii) Cefuroxime |
| iii) Cefepime | iv) Cefpirome |

e) Which of the following is untrue for tetracycline?

- | | | |
|---------------------------------|----------------------------------|------------|
| i) Broad spectrum antibiotic | ii) Has chelating property | |
| iii) May lead to tendon rupture | iv) May lead to hepatic necrosis | 1×5 |

Q.2 Answer the following in brief:

a) Analyze the role of multidrug therapy for the management of tuberculosis patients.

b) Describe the clinical significance of the combination of amoxycillin with clavulanic acid.

c) Describe the indications and side effects associated with aminoglycosides.

d) Describe the clinical significance of drug synergism with suitable examples.

e) Describe the clinical significance of mummifying agents. **5×5**

Q.3 Long question:

Explain the indications, side effects and contraindications of glucocorticoids. **10**

PART-B

Q.4 Multiple choice questions:

a) Cardio-selective betablockers include all except:

- | | |
|-----------------|-----------------|
| i) Metoprolol | ii) Atenolol |
| iii) Acebutolol | iv) Propranolol |

b) Which among these is a selective COX-2 inhibitor?

- | | |
|-----------------|-----------------------|
| i) Aspirin | ii) Nimesulide |
| iii) Etoricoxib | iv) Diclofenac sodium |

c) Aspirin has:

- | | |
|--------------------------|------------------------------|
| i) Antithrombotic action | ii) Anti-inflammatory action |
| iii) Analgesic action | iv) All of the above |

- d) Which of the following are adverse effects of glucocorticoids?
- i) Osteoporosis
 - ii) Delayed wound healing
 - iii) Suppression of HPA axis
 - iv) All of the above
- e) Clotrimazole is:
- i) Used in oropharyngeal candidiasis
 - ii) Used in tinea infections
 - iii) Both of the above
 - iv) None of the above

1×5

Q.5 Answer the following in brief:

- a) Critically evaluate the combination of adrenaline with lignocaine.
- b) Compare the amoxicillin and ampicillin.
- c) Analyze the adverse drug reactions of a 35-year-old tubercular patient on isoniazid.
- d) Write the management of oral candidiasis.
- e) Describe disclosing agents and its significance.

5×5

Q.6 Long question:

Explain the management of bronchial asthma. Discuss the therapeutic uses and adverse effects of various drugs.

10

- i) Cohort studies
 - ii) Case control studies
 - iii) Experimental studies
 - iv) Descriptive studies
- d) Health care services to be shared equally by all people ensures the principle of:
- i) Community participation
 - ii) Equitable distribution
 - iii) Intersectoral coordination
 - iv) Appropriate technology
- e) The three tier quasi judicial machinery of the CPA does not include:
- i) District consumer dispute redressal forum
 - ii) State consumer dispute redressal forum
 - iii) Union territory dispute redressal forum
 - iv) National consumer dispute redressal forum
- 1×5**

- Q.5 Write short notes on:
- a) Dental council of India.
 - b) Informed consent.
 - c) Pathfinder survey.
 - d) ASHA worker.
 - e) Changing concepts of health.
- 5×5**

- Q.6 Long questions:
- Explain in detail steps in planning a public health program.
- 10**

- i) Not doing wrong. Dentists and dental researchers are to avoid inflicting harm on patients.
- ii) A good quality in people, especially in their character and behavior.
- iii) A form of dishonest behavior whereby a person copies the work of someone else.
- iv) Fair treatment of individuals and groups. **1×5**

Q.5 Answer the following in brief:

- a) Discuss the rational approaches of ethical issues.
- b) Short note on resource allocation.
- c) Nuremberg code.
- d) Give an example and write about respect and equal treatment in terms of ethics.
- e) Types of publication ethics. **6×5**

Q.6 Long questions:

Discuss FDI world dental federation international principles of ethics for the dental profession. **15**

Annual Examination, August 2023
Bachelor of Dental Surgery – First Year
GENERAL HUMAN PHYSIOLOGY (BDS-PHYS-101)

Time: 3 hrs.
80

Max Marks:

No. of pages:

2

Note: ● Question Paper has **TWO** parts: **PART-A** and **PART-B**. Marks are indicated against each question.

- All questions are **compulsory**. Draw the diagrams where ever necessary.
- Attempt **PART-A** and **PART-B** in the separate answer sheets.

PART-A

Q.1 Multiple choice questions:

- a) Milieu interieur refers to: (BL-2,CO-3,PSO-1)
- i) internal environment of the cell
 - ii) fluid which is present within the cell
 - iii) hemoglobin that is useful to maintain constancy of blood pH
 - iv) heamostasis
- b) The process by which WBCs squeeze through pores in capillary wall is: (BL-2,CO-3,PSO-1)
- i) Chemotaxis
 - ii) Diapedesis
 - iii) Pinocytosis
 - iv) Opsonization
- c) Erythropoiesis is completed in _____ days. (BL-1,CO-2,PSO-1)
- i) 3
 - ii) 7
 - iii) 14
 - iv) 20
- d) The jumping of depolarization from node to node is called: (BL-1,CO-3,PSO-1)
- i) Absolute refractory period
 - ii) Relative refractory period
 - iii) Saltatory conduction
 - iv) Orthodromic conduction
- e) During muscle contraction sliding of Thin filaments over the Thick filaments is brought about by: (BL-2,CO-2,PSO-1)
- i) Reaccumulation of Ca⁺⁺ ions into terminal cistern.
 - ii) Depolarization of myofibrils.
 - iii) Formation of cross bridges between actin and myosin.
 - iv) Release of Ca⁺⁺ intra cellularly.
- 1×5**

Q.2 Answer the following in brief:

- a) Explain reflex arc with the help of a diagram. Add a note on 'withdraw reflex'. (BL-3,CO-4,PSO-1)
- b) What is Tubuloglomerular feedback mechanism? Add a note on 'GFR'. (BL-2,CO-1,PSO-1)
- c) What is Erythroblastosis fetalis? Explain Landsteiner's law. (BL-2,CO-2,PSO-1)
- d) Draw a normal ECG. Explain the cause for different waves in an ECG. (BL-2,CO-1,PSO-1)
- e) Explain oxygen transport in the blood. Add a note on oxygen dissociation curve. (BL-3,CO-1,PSO-1) **5×5**

Q.3 Long questions:

Describe the steps involved in the synthesis of thyroid hormones. Explain its physiological functions. Add a note on 'cretinism'. (BL-3,CO-2,PSO-1) **10**

PART-B

- Q.4 Multiple choice questions:
- a) Gastric secretion is inhibited by: (BL-2,CO-1,PSO- 1)
- | | |
|----------------|------------------------------------|
| i) Gastrin | ii) Secretin |
| iii) Histamine | iv) Products of protein digestion. |
- b) Following are the properties of skeletal muscle except: (BL-2,CO-3,PSO-1)
- | | |
|-------------------|---------------------|
| i) Excitability | ii) Autorhythmicity |
| iii) Conductivity | iv) Contractility |
- c) Normal respiration is called as: (BL-2,CO-2,PSO-1)
- | | |
|--------------|---------------|
| i) Apnea | ii) Eupnea |
| iii) Dyspnea | iv) Orthopnea |
- d) Phantom limb is an example of the following property of sensation: (BL-2,CO-3,PSO-1)
- | | |
|--------------------------------------|-----------------------|
| i) Doctrine of specific nerve ending | ii) Law of Projection |
| iii) Intensity discrimination | iv) Adaptation |
- e) The symptoms of diabetes mellitus include all the following except: (BL-2,CO-2,PSO-1)
- | | |
|-----------------|-------------------|
| i) Polyuria | ii) Polyphagia |
| iii) Polydipsia | iv) Polychromasia |
- 1 × 5**
- Q.5 Answer the following in brief:
- a) What are non respiratory functions of lungs? (BL-1,CO-3,PSO-1)
- b) Enumerate the functions of Saliva. Add a note on 'regulation of Saliva'. (BL-3,CO-3,PSO-1)
- c) Explain the structure of Juxtaglomerular apparatus. What are the functions of it? (BL-2,CO-3,PSO-1)
- d) Name the errors of refraction. Explain its corrections with the help of a diagram. (BL-1,CO-3,PSO-1)
- e) Write a note on 'contraceptive methods' in both males and females. (BL-3,CO-3,PSO-1) **5 × 5**
- Q.6 Long questions:
- Define 'blood pressure'. Give its normal values. Describe any one mechanism of regulation of blood pressure. (BL-2,CO-3,PSO-1) **10**

Annual Examination, August 2023

Bachelor of Dental Surgery – First Year

DENTAL MATERIALS (BDS-PROS-201)

Time: 3 hrs.

Max Marks:

80

No. of pages:

2

Note: ● Question Paper has **TWO** parts: **PART-A** and **PART-B**. Marks are indicated against each question.

● All questions are **compulsory**. Draw the diagrams where ever necessary.

● Attempt **PART-A** and **PART-B** in the separate answer sheets.

PART-A

Q.1 Multiple choice questions:

- a) Which of the following properties of dental materials is time dependent?
- | | |
|--------------------|-----------------------|
| i) Creep | ii) Resilience |
| iii) Elastic limit | iv) Ultimate strength |
- b) When solid gets wet completely contact angle is:
- | | |
|------------------|----------------|
| i) 90 degree | ii) 0 degree |
| iii) 0-90 degree | iv) >90 degree |
- c) Retarder in zinc oxide eugenol is:
- | | |
|----------------------|------------------|
| i) CaCl ₂ | ii) Zinc acetate |
| iii) Alcohol | iv) Glycerine |
- d) Water powder ratio of dental stone and plaster respectively is:
- | | |
|-------------------|-------------------|
| i) 0.28 and 0.5 | ii) 0.5 and 0.28 |
| iii) 0.6 and 0.32 | iv) 0.28 and 0.98 |
- e) Die is:
- | | |
|-------------------------------|-----------------------------|
| i) Impression of single tooth | ii) Impression of all teeth |
| iii) Replica of single tooth | iv) Replica of all teeth |

1×5

Q.2 Write short notes on:

- a) Syneresis and imbibitions.
b) Ductility and malleability.
c) Hygroscopic setting expansion.
d) Phosphate bonded investment.
e) High copper amalgams.

5×5

Q.3 Classify dental impression materials. Compare and contrast various elastomeric impression materials.

10

PART-B

Q.4 Multiple choice questions:

- a) If resin is packed in sandy stage what will be seen in processed denture.
- | | |
|--------------------------|------------------------|
| i) Distortion | ii) Porosity |
| iii) Inhomogeneous color | iv) Increased strength |
- b) The function of coupling agent in a restorative resin is to allow:
- | |
|---------------------------------------|
| i) Adhesion of resin particles |
| ii) Bonding between filler particles |
| iii) Bonding between filler and resin |
| iv) Bonding between tooth and resin |

- c) Ideal requirements of metal ceramic casting.
 - i) Low fusing and high fusing alloys
 - ii) Matching of coefficients of thermal expansion of ceramic and alloy
 - iii) Bonding between ceramic and alloy
 - iv) All of the above
- d) Stabilization of stainless-steel is achieved by adding.
 - a) carbon
 - b) chromium
 - c) nickel
 - d) titanium
- e) Function of carnauba wax:
 - i) To provide a smooth and glossy surface
 - ii) Increase toughness
 - iii) Decrease toughness
 - iv) Decrease flow at mouth temperature

1×5

Q.5 Write short notes on:

- a) Microfilled composite resins.
- b) Chemically activated denture based resins.
- c) Annealing.
- d) Zinc phosphate cement.
- e) Biocompatibility of dental materials.

5×5

Q.6 Enumerate various types of casting defects. Discuss porosity in detail.

10

Annual Examination, August 2023

Bachelor of Dental Surgery – Fourth Year

PROSTHODONTICS AND CROWN AND BRIDGE (BDS-PROS-401)

Time: 3 hrs.

Max

Marks: **80**

No. of

pages: 2

Note: ● Question Paper has **TWO** parts: **PART-A** and **PART-B**. Marks are indicated against each question.

● All questions are **compulsory**. Draw the diagrams where ever necessary.

● Attempt **PART-A** and **PART-B** in the separate answer sheets.

PART-A

Q.1 Multiple choice questions:

- a) Pain in the TMJ is due to: (CO1, PO1)
i) Decreased vertical dimension of occlusion
ii) Increased freeway space
iii) Increased vertical dimension of occlusion
iv) None of the above
- b) Occlusal rest in clasp assembly serves the purpose of: (CO3, PO2)
i) Support ii) Retention
iii) Stability iv) Passivity
- c) Role of zinc acetate in zinc-oxide Eugenol cement: (CO2, PO2)
i) Reduce brittleness ii) Aids in sintering
iii) Accelerator iv) Plasticizer
- d) System used to make dies in FDP: (CO3, PO2)
i) Munsell system ii) Pindex system
iii) Dielock system iv) Both ii) and iii)
- e) Reduction required for functional cusp in cast metal alloy: (CO3, PO3)
i) <1mm ii) 1-1.5 mm
iii) 2 mm iv) 2-5 mm **1×5**

Q.2 Write short notes on:

- a) Neutral zone. (CO1, PO2)
b) Swing lock design (CO3, PO2)
c) Permanent luting agents. (CO2, PO3)
d) Burning mouth syndrome. (CO3, PO3)
e) Connectors in FDP. (CO1, PO1) **5×5**

Q.3 A 20-year old patient presents with missing central incisor. Discuss different treatment modalities for the patient. (CO3, PO4) **10**

PART-B

Q.4 Multiple choice questions:

- a) Dentogenic concept was given by: (CO2, PO2)
i) McCollum ii) Sicher
iii) Frush and Fischer iv) House
- b) The undercut required for wrought wire clasp: (CO1, PO1)
i) 0.01inch ii) 0.02 inch
iii) 0.03 inch iv) 0.04 inch
- c) Factors related to heat generated during implant osteotomy, except: (CO3, PO2)
i) Amount of bone being prepared ii) Amount of bleeding

- | | | |
|---|------------------------|------------|
| iii) Drill speed | iv) Cortical thickness | |
| d) There cannot be any modification in Kennedy's classification in: | | (CO3, PO3) |
| i) Class IV | ii) Class II | |
| iii) Class I | iv) Class III | |
| e) Which is the technique for recording centric jaw relation: | | (CO2, PO1) |
| i) Niswonger method | ii) Dawson method | |
| iii) Arrow point tracing | iv) None of above | 1×5 |

- Q.5 Write short notes on:
- | | |
|-------------------------|-----------------------|
| a) Tissue conditioner. | (CO2, PO2) |
| b) Over dentures. | (CO3, PO3) |
| c) Hinge axis. | (CO2, PO3) |
| d) Finish lines in FDP. | (CO2, PO2) |
| e) Pier abutment. | (CO3, PO2) 5×5 |

- Q.6 Define 'balanced occlusion'. Discuss in detail different occlusal schemes in complete dentures. (CO3,PO3) **10**

Annual Examination, August 2023
Bachelor of Dental Surgery – First Year
BEHAVIOURAL SCIENCES (BDS-PSY-OE-001)

Time: 3 hrs.

Max Marks: **100**

No. of pages: 2

Note: ● Question Paper has **TWO** parts: **PART-A** and **PART-B**. Marks are indicated against each question.

● All questions are **compulsory**. Draw the diagrams where ever necessary.

● Attempt **PART-A** and **PART-B** in the separate answer sheets.

PART-A

Q.1 Multiple choice questions:

a) People with positive self-concept are:

- | | |
|-------------------------|--------------------------|
| i) Confident | ii) Feel equal to others |
| iii) Respect themselves | iv) All of the above |

b) Low self-esteem people are highly concerned with self-protection.

- | | |
|---------|-----------|
| i) True | ii) False |
|---------|-----------|

c) ABC model of attitude involves:

- | | |
|----------------|-----------------------|
| i) Affection | ii) Cognition |
| iii) Behaviour | iv) None of the above |

d) Some positive healthy emotions are:

- | | |
|-----------------|----------------------|
| i) Self -esteem | ii) Desire |
| iii) Love | iv) All of the above |

e) Emotional intelligence (EI) is the ability to:

- | | |
|------------------------------|-------------------------|
| i) Identify and use emotions | ii) Understand emotions |
| iii) Manage emotions | iv) All of the above |

1×5

Q.2 Answer the following in brief:

- Characteristics of the people with negative self-concept
- Draw the concept of cognitive, affective, and behavioural aspects of self-concept
- What do you mean by need for belongingness and sense of mastery?
- Describe the characteristics of people with positive, negative, and neutral attitude.
- Suggest some strategies to manage anger.

6×5

Q.3 Long questions:

Define 'self-concept'. Suggest the steps to develop self-concept.

15

PART-B

Q.4 Multiple choice questions:

a) Our perception that our group is better than other group is known as:

- | | |
|-------------------------|-------------------------|
| i) Out group preference | ii) In-group favoritism |
| iii) Stereotype | iv) None of the above |

b) The stage of team building when group members experience conflict is known as:

- | | |
|--------------|----------------|
| i) Forming | ii) Storming |
| iii) Norming | iv) Performing |

c) The techniques which reinforces us to view a positive vision of ourselves is known as:

- | | |
|------------------|--------------------------|
| i) Bio feedback | ii) Guided imagery |
| iii) Mindfulness | iv) Relaxation technique |

Annual Examination, August 2023
Bachelor of Dental Surgery – First Year
RESEARCH INNOVATION CATALYST (BDS-RIC-101)

Time: 3 hrs.

Max Marks: **80**

No. of pages: 2

- Note: ● *Question Paper has **TWO** parts: **PART-A** and **PART-B**. Marks are indicated against each question.*
- *All questions are **compulsory**. Draw the diagrams where ever necessary.*
- *Attempt the **PART-A** and **PART-B** in the separate answer sheets.*

PART-A

Q.1 Multiple choice questions:

- a) Why should we do research?
- i) Seeking new Knowledge
 - ii) Critical reading
 - iii) Development of a scientific attitude
 - iv) All the above
- b) Which section of a manuscript/report has no citation?
- i) Material and Method
 - ii) Abstract
 - iii) Introduction
 - iv) Discussion
- c) Frequency distribution is diagrammatically represented using a:
- i) Histogram
 - ii) Pie chart
 - iii) Bar diagram
 - iv) All of the above
- d) Mode is:
- i) Middle most value
 - ii) Average of all values
 - iii) Most frequently appearing value
 - iv) All the above
- e) Random sampling methods are all except:
- i) Systematic random sampling
 - ii) Purposive sampling
 - iii) Cluster randomized sampling
 - iv) Quota sampling

1×5

Q.2 Write short notes on following:

- a) Computers in research.
- b) Difference between questionnaire and schedules.
- c) Write about the different parts of a scientific paper.
- d) Methods of primary data collection.
- e) Measures of central tendency.

5×5

Q.3 Long question:

Importance of research ethics. Write about the declaration of Helsinki in detail.

10

PART-B

Q.4 Multiple choice questions:

- a) Difference in upper and lower limits is called as:
- i) Range
 - ii) Standard deviation
 - iii) Frequency
 - iv) Class Interval
- b) Which of the following is a source of primary data?
- i) Books
 - ii) Surveys
 - iii) Newspapers
 - iv) Internet articles
- c) All are measures of dispersion except:
- i) Variance
 - ii) Mean deviation
 - iii) Mean
 - iv) Standard deviation

- d) Male/Female comes under which scale:
- i) Nominal
 - ii) Ordinal
 - iii) Ratio
 - iv) Interval
- e) Data can be collected by:
- i) Interview
 - ii) Interview
 - iii) Past records
 - iv) All of the above
- 1×5**

- Q.5 Write short notes on the following:
- a) Referencing in research.
 - b) Presentation of quantitative data.
 - c) Objectives of conducting research.
 - d) Types of sampling techniques.
 - e) Plagiarism and its types.
- 5×5**

- Q.6 Long questions:
- Write about the steps to design a survey. Explain with the help of an example. **10**

Annual Examination, August 2023
Bachelor of Dental Surgery – Second Year
RESEARCH INNOVATION CATALYST (BDS-RIC-201)

Time: 3 hrs.

Max Marks: **80**

No. of pages: 2

Note: ● Question Paper has **TWO** parts: **PART-A** and **PART-B**. Marks are indicated against each question.

● All questions are **compulsory**. Draw the diagrams where ever necessary.

● Attempt the **PART-A** and **PART-B** in the separate answer sheets.

PART-A

- Q.1 a) What is the first step in the design thinking process?
i) Empathize ii) Design
iii) Ideate iv) Build Prototype
- b) Design thinking is:
i) Way to think about design
ii) Designing a Product
iii) Method and mindset to define, frame and solve problems
iv) Way to separate thinking from making
- c) Which of the following cannot be patented?
i) A new Software ii) A new method of playing a game
iii) A new system or process
- d) Which of the following is primary source literature?
i) Direct interview transcripts ii) Journal Article
- e) Snowball sampling is a type of:
i) Probability sampling ii) Non Probability Sampling **1×5**
- Q.2 Write short notes on the following:
a) Types of patents.
b) Reference management softwares.
c) Harvard style of referencing.
d) Differentiate between process and product innovation.
e) Literature search. **5×5**
- Q.3 Long questions:
Steps in design thinking. **10**

PART-B

- Q.4 Multiple choice questions:
a) AND, OR and NOT are:
i) Boolean Operators ii) Filters iii) Keywords
b) Least reliable measure of central tendency is:
i) Mode ii) Median iii) Mean
c) All are measures of dispersion except:
i) Variance ii) Mean Deviation iii) Mean
d) SWOT analysis is:
i) Survey Work Operations Testing
ii) See Wonder Observe Treat
iii) Strength Weakness Opportunity Threat
e) Copyright is a type of:
i) IPR ii) Patent **1×5**
- Q.5 Write short notes on the following:

- a) Types of consent.
- b) Standard deviation.
- c) Format for writing literature review.
- d) Explain the use of truncation signs.
- e) Steps in systematic review.

5×5

Q.6 Long questions:

What is a patent? Discuss steps involved in applying for a patent.

10

Annual Examination, August 2023
Bachelor of Dental Surgery – Third Year
RESEARCH AND INNOVATION CATALYST – III (BDS-RIC-301)

Time: 3 hrs.

Max Marks: **80**

No. of pages: 2

- Note: ● Question Paper has **TWO** parts: **PART-A** and **PART-B**. Marks are indicated against each question.
- All questions are **compulsory**. Draw the diagrams where ever necessary.
- Attempt the **PART-A** and **PART-B** in the separate answer sheets.

PART-A

Q.1 Multiple choice questions:

- a) Cohort study is a:
- Prospective study
 - Retrospective study
 - Can go in either direction
- b) Number of years for which clinical trial records need to be saved in India are:
- 2 years after approval of marketing application
 - 3 years after approval of marketing application
 - 5 years after approval of marketing application
 - Forever
- c) All are pressure habits except
- | | |
|------------------|----------------------|
| i) Thumb sucking | ii) Mouth breathing |
| iii) Lip biting | iv) Tongue thrusting |
- d) Berkson's bias is also known as:
- | | |
|--------------------------------|-------------------|
| i) Selection bias | ii) Recall bias |
| iii) Prevalence-incidence bias | iv) Hospital bias |
- e) Non Parametric equivalent of paired t test is:
- | | |
|------------------------|-----------------------------|
| i) Kruskal Walis ANOVA | ii) Wilcoxon sign rank test |
| iii) Chi square test | iv) Mann whitney U test |

1×5

Q.2 Answer the following in brief:

- a) A study was done to assess difference in DMFT scores of girls and boys of 6th grade. Which test of significance will be applied? Justify your answer.
- b) General examination in case history.
- c) Correlation.
- d) Incidence and prevalence.
- e) Basic guidelines for maintaining research records.

5×5

Q.3 Long questions:

Create objectives for an epidemiological study to determine causes of oral cancer in the community. Design a case recording proforma to collect data in order to achieve your objectives.

10

PART-B

Q.4 Multiple choice questions:

- a) All are statistical analysis softwares except-
- | | | | |
|------|------------|-----------|-----------|
| i) R | ii) GPower | iii) SPSS | iv) STATA |
|------|------------|-----------|-----------|

Roll No.: _____

Annual Examination, August 2023
Master of Dental Surgery – Second Year
FORENSIC ODONTOLOGY (MDS-ORPA-OE-001)

Time: 3 hrs.

Max Marks: **100**

No. of pages: 1

Note: All questions are **compulsory** and also draw the diagrams where ever necessary.
Marks are indicated against each question.

Q.1 **Write short notes on:**

- a) Review Demirjian's method of Radiographic Age Estimation. (BL-2, CO-3)
- b) Compare and contrast between Cheiloscopy Palatoscopy. (BL-4, CO-4)
- c) Illustrate methods of denture marking. (BL-3, CO2)
- d) Discuss concept of chain of custody. (BL-2, CO-5)
- e) Create a forensic report. (BL-5, CO-4)
- f) Underline the importance of record keeping in dental office. (BL-1, CO-3)
- g) Discuss CAPMI. (BL-2, CO-1)
- h) Explain step wise procedure of Amelogyphics. (BL-2, CO-3)
- i) Propose role of tongue prints in forensic investigations. (BL-5, CO-2)
- j) Judge the role of Dentists in the cases of child abuse. (BL-6, CO-5) **5×10**

Long questions:

- Q.2 Discuss in detail about classification systems, variables affecting, methods of recording and analysis of bite mark evidence. (BL-2, CO-1) **25**
- Q.3 Define 'forensic odontology'. Assess the roles and responsibilities of a forensic odontologist. (BL-6, CO-5) **25**

Annual Examination, August 2023
Master of Dental Surgery – First Year
ORTHODONTICS AND DENTOFACIAL ORTHOPEDICS-BASICS
(MDS-ORTH-101)

Time: 3 hrs.

Max Marks: **100**

No. of pages: **1**

Note: *All questions are **compulsory** and also draw the diagrams where ever necessary.
Marks are indicated against each question.*

- Q.1 Write short notes on:
- a) Classification of Timolium wires. [CO4][L-1]
 - b) Drugs Enhancing orthodontic tooth movement. [CO2][L-2]
 - c) Sterilization methods in orthodontics. [CO3][L-3]
 - d) Test of significance. [CO4][L-2]
 - e) Is condyle the cornucopia of growth. [CO1][L-5]
 - f) Homeobox Genes. [CO1][L-2]
 - g) Facial Nerve. [CO1][L-4]
 - h) Basic Research Design in orthodontics. [CO4][L-3]
 - i) Application of Leeway space. [CO3][L-4]
 - j) Bruxism. [CO2][L-5] **5×10**

Long questions:

- Q.2 Discuss in detail functional matrix hypothesis of growth and its revisited theory with its clinical applications in orthodontics with diagrams. [CO4][L-4] **25**
- Q.3 Discuss the role of nasopharyngeal airway in developing malocclusion. [CO1][L-2] **25**

Roll No.: _____

Annual Examination, August 2023

Master of Dental Surgery – First Year

PEDIATRIC AND PREVENTIVE DENTISTRY BASICS (MDS-PEDO-101)

Time: 3 hrs.

Max Marks: **100**

No. of pages: 1

Note: *All questions are **compulsory** and also draw the diagrams where ever necessary. Marks are indicated against each question.*

- Q.1 Write short notes on:
- a) Genetic counselling. [CO6 L3]
 - b) TMJ. [CO1 L1]
 - c) Saliva and dental caries. [CO1 L4]
 - d) Diet diary. [CO1 L6]
 - e) Coagulative necrosis. [CO1 L1]
 - f) Hemostatis. [CO1 L1]
 - g) Development of cleft lip and palate. [CO1 L1]
 - h) Hemophilia. [CO1 L1]
 - i) Indications and contraindications of LA. [CO3 L2]
 - j) Write about T Test. **5×10**
- Q.2 Discuss antibiotics used in pediatric dentistry with recent guidelines. [CO3, L3] **25**
- Q.3 Describe trigeminal nerve in detail with its clinical applications. [CO1 L3] **25**

Roll No.: _____

Annual Examination, August 2023
Master of Dental Surgery – First Year
PERIODONTOLOGY–BASICS (MDS-PERI-101)

Time: 3 hrs.

Max Marks: **100**

No. of pages: *1*

Note: *All questions are **compulsory** and also draw the diagrams where ever necessary.
Marks are indicated against each question.*

Q.1 Answer the following in brief:

- a) Describe the role of *porphyromonas gingivalis* in periodontal disease. (CO-1) (L-1)
- b) Summarize the role of Saliva as a diagnostic marker in periodontics. (CO-4) (L-5)
- c) Classify hemostatic agents and justify their use as coagulants. (CO-3) (L-4)
- d) Determine the methods to eliminate bias in scientific research. (CO-6) (L-3)
- e) Explain the Null hypothesis. (CO-3) (L-2)
- f) Describe the microscopic features of gingiva in disease. (CO-2)(L-1)
- g) Illustrate the development of periodontium and its anomalies. (CO-2)(L-3)
- h) Assess the role of volatile sulphur compounds. (CO-1)(L-5)
- i) Formulate the uses local delivery agents in periodontics. (CO-5)(L-6)
- j) Integrate the use of systemic antimicrobials in periodontics. (CO-5)(L-6) **5×10**

Q.2 Discuss the role of diet in health and disease of periodontium. (CO-6)(L-2) **25**

Q.3 Classify leucocytes and discuss the role of neutrophils in health and disease. (CO-1)(L-4) **25**

Roll No.: _____

Annual Examination, August 2023
Master of Dental Surgery – First Year
BEHAVIOURAL SCIENCE (MDS-PSY-OE-001)

Time: 3 hrs.

Max Marks: **100**

No. of pages: 1

Note: *All questions are **compulsory** and also draw the diagrams where ever necessary.
Marks are indicated against each question.*

- Q.1 Write short notes on:
- a) Component of self-concept. [CO-1][L-2]
 - b) Characteristics of the people with low self esteem. [CO-1][L-2]
 - c) Strategies for building self esteem. [CO-1][L-2]
 - d) Types of attitudes. [CO-1][L-2]
 - e) Component of emotional intelligence. [CO-4][L-2]
 - f) Mindfulness technique. [CO-3][L-2]
 - g) Differences between Eu stress and distress. [CO-3][L-2]
 - h) Concept of team and group. [CO-5][L-2]
 - i) Team roles and responsibilities. [CO-5][L-2]
 - j) Cognitive dissonance. [CO-5][L-2] **5×10**
- Q.2 Discuss the characteristics of four types of self-based on Johari window. [CO-1][L-2] **25**
- Q.3 Draw the importance of emotional intelligence in workplace. [CO-5][L-6] **25**

Roll No.: _____

Annual Examination, June 2023

Master of Dental Surgery – Third Year

CONSERVATIVE DENTISTRY AND ENDODONTICS -II

(MDS-CONS-201-I & II)

PAPER – I (CONSERVATIVE DENTISTRY)

Time: 3 hrs.

Max Marks: **100**

No. of pages: 1

Note: *All questions are **compulsory** and also draw the diagrams where ever necessary.
Marks are indicated against each question.*

Q.1 ***Write short notes on:***

- | | |
|--|-------------------------|
| a) Discuss etiology and management of abrasion and erosion of teeth. | [CO-1][L-2] |
| b) Explain componeers. | [CO-6][L-1] |
| c) Analyze microleakage. | [CO-1][L-4] |
| d) Discuss bur designs. | [CO-2][L-2] |
| e) Discuss biological properties of restorative materials. | [CO-1][L-1] |
| f) Assess role of bonding agents in operative dentistry. | [CO-1][L-5] |
| g) Discuss finishing and polishing of adhesive restorations. | [CO-1][L-1] |
| h) Explain green dentistry. | [CO-6][L-1] |
| i) Discuss casting technique and casting errors. | [CO-1][L-2] |
| j) Explain different types of veneers. | [CO-6][L-1] 5×10 |

Long questions:

- | | |
|---|-----------------------|
| Q.1 Describe recent advancements in smile design concept. | [CO-3][L-1] 25 |
| Q.2 Discuss cavity design of inlay and onlay preparation. | [CO-5][L-2] 25 |

Roll No.: _____

Annual Examination, June 2023
Master of Dental Surgery – Third Year
CONSERVATIVE DENTISTRY AND ENDODONTICS –II
(MDS-CONS-201-I & II)
PAPER – II (ENDODONTICS)

Time: 3 hrs.

Max Marks: **100**

No. of pages: 1

Note: *All questions are **compulsory** and also draw the diagrams where ever necessary.
Marks are indicated against each question.*

Q.1 **Write short notes on:**

- | | |
|---|-------------------------|
| a) Etiology and management of dens invaginatus. | [CO-1][L-2] |
| b) Describe role of CBCT in endodontics. | [CO-2][L-2] |
| c) Assess microbiology of periapical lesions. | [CO-2][L-5] |
| d) Describe role of intraligamentary technique of injection in endodontics. | [CO-1][L-2] |
| e) Determine role of guided endodontics in access cavity preparation. | [CO-2][L-3] |
| f) Discuss role of antibiotics in endodontics. | [CO-4][L-1] |
| g) Discuss endodontic instruments. | [CO-2][L-1] |
| h) Etiology and management of tooth discoloration. | [CO-4][L-2] |
| i) Assess pulp sensibility and vitality tests. | [CO-4][L-5] |
| j) Describe avulsion and its protocol. | [CO-4][L-2] 5×10 |

Long questions:

- | | | |
|-----|--|-----------------------|
| Q.2 | Discuss role of platelet concentrates in endodontics. | [CO-2][L-1] 25 |
| Q.3 | Discuss various techniques of irrigation with recent advancements. | [CO-3][L-1] 25 |

Roll No.: _____

Annual Examination, June 2023
Master of Dental Surgery – Third Year
CONSERVATIVE DENTISTRY AND ENDODONTICS -II
(MDS-CONS-201-I & II)
PAPER – III (ESSAY)

Time: 3 hrs.

Max Marks: **100**

No. of pages: 1

Note: *Attempt any **TWO** questions also draw the diagrams where ever necessary. Marks are indicated against each question.*

Long questions:

- Q.1 Discuss role of Local anaesthesia and Antibiotics in endodontics. [CO-4][L-2] **50**
- Q.2 Describe regeneration in endodontics. [CO-4][L-1] **50**
- Q.3 Discuss minimal invasive dentistry. [CO-2][L-2] **50**

Roll No.: _____

Annual Examination, June 2023
Master of Dental Surgery – Third Year
ORAL RADIOLOGY COMPREHENSIVE PROGRAMME
(MDS-ORCP-OE-001)

Time: 3 hrs.

Max Marks: **100**

No. of pages: 1

Note: *All questions are **compulsory** and also draw the diagrams where ever necessary. Marks are indicated against each question.*

Q.1 **Write short notes on:**

- | | |
|---|-------------------------|
| a) TLD badge. | [CO-3][L-2] |
| b) Deterministic effects of radiation. | [CO-3][L-2] |
| c) Radiolysis of water. | [CO-3][L-2] |
| d) Acute radiation syndrome. | [CO-3][L-2] |
| e) ALARA principle. | [CO-3][L-2] |
| f) Maximum permissible dose. | [CO-3][L-2] |
| g) Filtration. | [CO-3][L-2] |
| h) Intensifying screens. | [CO-3][L-2] |
| i) Composition of X-ray film. | [CO-3][L-2] |
| j) Applications of CBCT in head and neck. | [CO-3][L-3] 5×10 |

Long questions:

Q.2 Explain concept of X-ray production. Draw a neat and labeled diagram of X-ray Tube. [CO-3] [L-2] **25**

Q.3 Illustrate radiation effects on oral cavity. [CO-3] [L-3] **25**

Roll No.: _____

Annual Examination, June 2023
Master of Dental Surgery – Third Year
ORTHODONTICS AND DENTOFACIAL ORTHOPAEDICS-II
(MDS-ORTH-201-I & II)
PAPER – I

Time: 3 hrs.

Max Marks: **100**

No. of pages: 1

Note: *All questions are **compulsory** and also draw the diagrams where ever necessary.
Marks are indicated against each question.*

Q.1 ***Write short notes on:***

- | | |
|--|--------------------------|
| a) Safety valve mechanism. | [CO-4] [L-2] |
| b) Body dysmorphic disorder. | [CO-2] [L-3] |
| c) Primary failure of eruption. | [CO-4] [L-5] |
| d) Gnathostatic goals of orthodontics. | [CO-3] [L-4] |
| e) 'C' axis. | [CO-3] [L-1] |
| f) Planned incisor position. | [CO-5] [L-3] |
| g) Orthodontic brackets for current esthetic trends. | [CO-4] [L-4] |
| h) Concept of attritional occlusion. | [CO-3] [L-2] |
| i) Epigenetics. | [CO-3] [L-5] |
| j) Two way communication. | [CO-2] [L-6] 5×10 |

Long questions:

- Q.2 Discuss the role of soft tissues in orthodontic treatment planning. [CO-4] [L-3] **25**
- Q.3 Discuss Orthodontic records, their management and future. [CO-3] [L-6] **25**

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Annual Examination, June 2023
Master of Dental Surgery – Third Year
ORTHODONTICS AND DENTOFACIAL ORTHOPAEDICS-II
(MDS-ORTH-201-I & II)
PAPER – II (CLINICAL ORTHODONTICS)

Time: 3 hrs.

Max Marks: **100**

No. of pages: 1

Note: *All questions are **compulsory** and also draw the diagrams where ever necessary.
Marks are indicated against each question.*

Q.1 **Write short notes on:**

- | | |
|--|--------------------------|
| a) 0.018 v/s 0.022 slot. | [CO-4] [L-5] |
| b) Clinical management of impacted canine. | [CO-3] [L-5] |
| c) Role of functional jaw orthopaedics. | [CO-1] [L-3] |
| d) Bonded molar tube: Why, Where, When. | [CO-4] [L-2] |
| e) Lasers in Orthodontics. | [CO-3] [L-3] |
| f) NiTi Coil Springs. | [CO-3] [L-2] |
| g) Ectopic teeth: management. | [CO-4] [L-3] |
| h) SureSmile. | [CO-3] [L-6] |
| i) Torque Prescription. | [CO-4] [L-5] |
| j) Tip Edge. | [CO-4] [L-3] 5×10 |

Long questions:

- Q.2 Comment on "stability in orthodontics". [CO-5] [L-5] **25**
- Q.3 Discuss case selection considerations for an adult patient. [CO-2] [L-3] **25**

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Annual Examination, June 2023
Master of Dental Surgery – Third Year
ORTHODONTICS AND DENTOFACIAL ORTHOPAEDICS-II
(MDS-ORTH-201-I & II)
PAPER – III (ESSAY)

Time: 3 hrs.

Max Marks: **100**

No. of pages: 1

Note: *Attempt any **TWO** questions also draw the diagrams where ever necessary. Marks are indicated against each question.*

Long questions:

- | | | |
|-----|--|------------------------|
| Q.1 | Discuss temporary anchorage devices in orthodontics. | [CO-3] [L-3] 50 |
| Q.2 | Discuss surgery first approach. | [CO-3] [L-4] 50 |
| Q.3 | Discuss technology update in orthodontics. | [CO-4] [L-6] 50 |

Annual Examination, June 2023
Master of Dental Surgery – Third Year
PEDIATRIC AND PREVENTIVE DENTISTRY (MDS-PEDO-201-I & II)
PAPER – I (CLINICAL PEDIATRIC DENTISTRY)

Time: 3 hrs.

Max Marks: **100**

No. of pages: 1

Note: *All questions are **compulsory** and also draw the diagrams where ever necessary.
Marks are indicated against each question.*

Q.1 Write short notes on:

- | | |
|---|--------------------------|
| a) Evaluate the applications of LASERS in Pediatric Dentistry | [CO-5] [L-5] |
| b) School dental health programs | [CO-2][L-1] |
| c) Oral mucosal lesions in children | [CO-3][L-2] |
| d) Treatment planning for a high risk caries child | [CO-1][L-6] |
| e) Myofunctional therapy | [CO-1][L-4] |
| f) Acute fluoride toxicity | [CO-1][L-5] |
| g) Masochistic habits | [CO-1][L-2] |
| h) Bioactive dental materials | [CO-3][L-4] |
| i) Dental management of children with bleeding disorders | [CO-1][L-3] |
| j) Ethics in pediatric dental practice | [CO-4] [L-3] 5×10 |

Long questions:

- Q.2 Critically evaluate the outcomes of recently introduced pulpotomy agents for primary teeth. [CO: 1][L: 5] **25**
- Q.3 Classify traumatic injuries to anterior teeth and discuss their management utilizing latest concepts. [CO: 1][L: 4] **25**

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Annual Examination, June 2023

Master of Dental Surgery – Third Year

**PEDIATRIC AND PREVENTIVE DENTISTRY (MDS-PEDO-201-I & II)
PAPER – II (PREVENTIVE AND COMMUNITY DENTISTRY AS APPLIED
TO PEDIATRIC DENTISTRY)**

Time: 3 hrs.

Max Marks: **100**

No. of pages: 1

Note: All questions are **compulsory** and also draw the diagrams where ever necessary.
Marks are indicated against each question.

Q.1 **Write short notes on:**

- | | |
|---|-------------------------|
| a) Dental applications of plant extracts | [CO:1][L:4] |
| b) Pediatric mandibular fractures | [CO:1][L:3] |
| c) Periodontal diseases in children | [CO:2][L:2] |
| d) Remineralizing agents | [CO:4][L:1] |
| e) Stem cell technological applications in clinical pediatric dentistry | [CO:5][L:6] |
| f) Pain assessment tools in children | [CO:1][L:3] |
| g) Space regainers | [CO:1][L:4] |
| h) Seal Bio technique | [CO:1][L:2] |
| i) Direct methods of evaluating pulp vitality | [CO:3][L:4] |
| j) Tests of significance | [CO:5][L:3] 5×10 |

Long questions:

- Q.2 Discuss the epidemiology of dental caries in children in India and critically compare with global trends. [CO:2][L:5] **25**
- Q.3 Analyze the core concepts in treatment planning for comprehensive cleft care management in children. [CO:5][L:6] **25**

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Annual Examination, June 2023

Master of Dental Surgery – Third Year

**PEDIATRIC AND PREVENTIVE DENTISTRY (MDS-PEDO-201-I & II)
PAPER – III (ESSAY)**

Time: 3 hrs.

Max Marks: **100**

No. of pages: 1

Note: *Attempt any **TWO** questions also draw the diagrams where ever necessary. Marks are indicated against each question.*

Long questions:

- | | | |
|-----|---|-----------------------|
| Q.1 | Recent advances in Pediatric Endodontics | [CO-1][L-5] 50 |
| Q.2 | Pediatric interceptive orthodontics | [CO-3][L-4] 50 |
| Q.3 | Preventive Pediatric Dentistry concepts of the new millennium | [CO-1][L-3] 50 |

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Annual Examination, June 2023
Master of Dental Surgery – Third Year
PERIODONTOLOGY (MDS-PERI-201-I & II)
PAPER – I

Time: 3 hrs.

Max Marks: **100**

No. of pages: 1

Note: *All questions are **compulsory** and also draw the diagrams where ever necessary.
Marks are indicated against each question.*

- Q.1 Write short notes on following:
- a) Illustrate the role of MMPs in periodontal diseases. [CO-3][L-3]
 - b) Outline the pathological changes in tooth surface wall of periodontal pocket. [CO-1][L-4]
 - c) List and explain the developmental anomalies of periodontium. [CO-2][L-1]
 - d) Justify the pathogenesis of drug induced gingival enlargement. [CO-4][L-5]
 - e) Compose modified risk factors in periodontal disease. [CO-5][L-6] **10×5**

Long questions:

- Q.2 Discuss the immunological pathways in the pathogenesis of periodontal disease. [CO-2][L-2] **25**
- Q.3 Describe the clinical and histological response of periodontium to external forces. [CO-1][L-1] **25**

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Annual Examination, June 2023
Master of Dental Surgery – Third Year
PERIODONTOLOGY (MDS-PERI-201-I & II)
PAPER – II (PERIODONTAL DIAGNOSIS, THERAPY AND ORAL
IMPLANTOLOGY)

Time: 3 hrs.

Max Marks: **100**

No. of pages: 1

Note: *All questions are **compulsory** and also draw the diagrams where ever necessary.
Marks are indicated against each question.*

Q.1 ***Write short notes on:***

- a) Summarize the Biological width maintenance and violation. [CO-4] [L-5]
- b) Determine the Failures of periodontal therapy. [CO-1][L-3]
- c) Outline Ailing, failing and failed implants and their management in brief. [CO-2][L-4]
- d) Tabulate the steps of Resective osseous surgery. [CO-3][L-1]
- e) Formulate the Role of lasers in periodontal therapy. [CO-1][L-6] **10×5**

Long questions:

- Q.2 Discuss the diagnosis and treatment planning of oral implants in esthetic region. [CO-5] [L-2] **25**
- Q.3 Describe the current treatment modality for gingival recession. [CO-3][L-1] **25**

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Annual Examination, June 2023
Master of Dental Surgery – Third Year
PERIODONTOLOGY (MDS-PERI-201-I & II)
PAPER – III (ESSAY)

Time: 3 hrs.

Max Marks: **100**

No. of pages: 1

Note: *Attempt any **TWO** questions also draw the diagrams where ever necessary. Marks are indicated against each question.*

Long questions:

- Q.1 Describe the statement "The oral microbiome: the role of key organisms and complex networks in periodontal health and disease". [CO-1][L-1] **50**
- Q.2 Illustrate on periodontal medicine. [CO-4][L-4] **50**
- Q.3 Compare the non-surgical therapy versus surgical therapy. [CO-3][L-5] **50**

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Annual Examination, June 2023
Master of Dental Surgery – Third Year
PROSTHODONTICS AND CROWN & BRIDGE– II (MDS-PROS-201-I&II)
PAPER – I (REMOVABLE PROSTHODONTICS & IMPLANTOLOGY)

Time: 3 hrs.

Max Marks: **100**

No. of pages: 1

Note: *All questions are **compulsory** and also draw the diagrams where ever necessary. Marks are indicated against each question.*

Q.1 Write short notes on:

- a) Analyze the role of nutritional factors in the management of completely edentulous patients, citing their impact on the oral health status and their implications in the success of the prosthodontic treatment. [CO2][L-1]
- b) Evaluate the impact of phonetics in the fabrication of complete denture prosthesis, highlighting the various techniques employed to assess and achieve optimal speech function. [CO3][L-2]
- c) Critically appraise the importance of characterization in the esthetic outcome of complete denture prostheses, discussing the different approaches, materials, and tools available to achieve lifelike naturalness. [CO1][L-2]
- d) Analyze the clinical and scientific evidence regarding immediate loading and delayed loading protocols of oral implants, discussing the advantages, limitations, and contraindications of each approach, and the factors that may affect their predictability and long-term outcomes. [CO2][L-2]
- e) Explain the differences and the factors that influence the occlusal scheme of complete dentures. [CO3][L-1]
- f) Explain the principles of overdenture design and fabrication. [CO][L-]
- g) Examine the concept of combination syndrome, elaborating on its etiology, clinical manifestations, and the prosthodontic considerations in the management of partially edentulous patients with this condition. [CO3][L-2]
- h) Compare and contrast the techniques for denture relining, rebasing, and rebase impressions, and explain when each is indicated. [CO1][L-1]
- i) Recall and list the different types of interocclusal records and their clinical applications in removable prosthodontics. [CO2][L-3]
- j) Explain the importance of rests in removable partial dentures, including their functions, types, and design principles, and how they contribute to stability, retention, and support of the prosthesis. [CO3][L1] **5×10**

Long questions:

- Q.2 Analyze the biomechanical principles and clinical considerations involved in the design and fabrication of implant-supported prosthesis, including the selection of appropriate

implant systems, implant placement protocols, prosthetic components, and occlusal schemes. [CO2][L2] **25**

Q.3 What are the techniques and rationale for making impressions for distal extension base removable partial dentures? [CO1][L2] **25**

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Annual Examination, June 2023
Master of Dental Surgery – Third Year
PROSTHODONTICS AND CROWN AND BRIDGE – II
(MDS-PROS-201-I & II)
PAPER – II (FIXED PROSTHODONTICS, TMJ AND ESTHETICS)

Time: 3 hrs.

Max Marks: **100**

No. of pages: 1

Note: *All questions are **compulsory** and also draw the diagrams where ever necessary. Marks are indicated against each question.*

Q.1 Write short notes on:

- a) What are the esthetic considerations in fixed prosthodontics? [CO-1][L-2]
- b) Discuss the factors influencing tooth preparation for a fixed prosthodontic restoration. [CO-2][L-2]
- c) Describe the etiology and signs/symptoms of temporomandibular joint disorder (TMD). [CO-3][L-1]
- d) Apply the principles of tooth reduction for a full coverage crown preparation on a given tooth model. [CO-2][L-2]
- e) Compare and contrast the advantages and disadvantages of metal-ceramic and all-ceramic fixed prosthodontic restorations. [CO-3][L-1]
- f) Analyze the factors affecting the selection of abutment teeth for a tooth-supported FDP in a partially edentulous arch. [CO-1][L-1]
- g) Critically evaluate the potential complications and risks associated with tooth-supported FDPs, including caries, periodontal disease, and occlusal issues. [CO-2][L-2]
- h) Critically evaluate the various Luting agents used in crown and bridge Prosthodontics and add a note on Luting agents used for all ceramic restorations. [CO-3][L-3]
- i) Evaluate the Different die systems in Fixed dental prosthesis. [CO-1][L-2]
- j) Compare and contrast the advantages and disadvantages of different pontic designs in terms of esthetics, patient comfort, and clinical performance. [CO-1][L-3] **5×10**

Long questions:

- Q.2 Discuss the principles and techniques of shade selection, color matching, and communication with the dental laboratory in fixed prosthodontics, including the use of shade guides, digital shade analysis, and communication tools. Critically evaluate the challenges and strategies for achieving esthetic outcomes and patient satisfaction. [CO-2][L-3] **25**
- Q.3 Analyze the soft tissue management techniques in fixed prosthodontics, including gingival retraction, crown lengthening, and tissue conditioning, with emphasis on their impact on esthetics and gingival health. Discuss the advantages, limitations, and evidence-based recommendations for their clinical application. [CO-2][L-2] **25**

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Annual Examination, June 2023
Master of Dental Surgery – Third Year
PROSTHODONTICS AND CROWN AND BRIDGE – II
(MDS-PROS-201-I & II)
PAPER – III (ESSAY)

Time: 3 hrs.

Max Marks: **100**

No. of pages: 1

Note: *Attempt any **TWO** questions also draw the diagrams where ever necessary. Marks are indicated against each question.*

Long questions:

- Q.1 Discuss in detail the biomechanical principles involved in designing a full-arch implant-supported fixed dental prosthesis for a completely edentulous maxilla. Include a step-by-step description of the treatment planning process, implant placement techniques, prosthesis design considerations, occlusal schemes, and esthetic considerations. Provide evidence-based rationale for your design choices, supported by relevant literature and clinical examples. [CO-3][L-2] **50**
- Q.2 Write a detailed review on the prosthetic rehabilitation of acquired maxillofacial defects, including defects due to surgical resection of tumors, trauma, and congenital anomalies. Discuss the interdisciplinary approach in maxillofacial prosthetic rehabilitation, involving prosthodontists, oral and maxillofacial surgeons, radiation oncologists, and other specialists. Describe the comprehensive treatment planning process, including patient evaluation, defect classification, treatment goals, and prosthesis design. Discuss the fabrication techniques and materials used in maxillofacial prostheses, including their esthetic, functional, and biocompatibility characteristics. Include evidence-based recommendations for the management of acquired maxillofacial defect. [CO-2][L-2] **50**
- Q.3 Write a detailed review on geriatric dentistry, including the challenges and considerations in providing prosthodontic care for elderly patients. Discuss the age-related changes in the oral cavity, systemic health considerations, assessment and management of age-related oral conditions, denture-related concerns, and preventive measures for oral health maintenance in the geriatric population. Include evidence-based recommendations and relevant clinical examples. [CO-2][L-1] **50**