DENTAL HYGIENE  HSSC–I
SECTION – A (Marks 20)

Time allowed: 25 Minutes

NOTE:- Section–A is compulsory and comprises pages 1-2. All parts of this section are to be answered on the question paper itself. It should be completed in the first 25 minutes and handed over to the Centre Superintendent. Deleting/overwriting is not allowed. Do not use lead pencil.

Q. 1 Circle the correct option i.e. A / B / C / D. Each part carries one mark.

(i) Which of the following parts is the control centre of the cell and is responsible for its development and the nature of its activity?
   A. Cytoplasm  B. Protoplasm  C. Nucleus  D. Mitochondria

(ii) Golgi apparatus is one of the organelles present in the cytoplasm of the cell. It is responsible _________.
   A. To convert ingested food into energy  B. To control cell development and nature of activity
   C. For production of secretions  D. For Phagocytosis

(iii) In which tissue of the body is the Harversian System present?
   A. Muscles  B. Blood vessels  C. Bone  D. Enamel

(iv) The principal function of circulatory system is to transport substances to and from the tissues which include _________.
   A. Oxygen  B. Carbon dioxide  C. Hormones  D. All of these

(v) The blood returning from the tissues enters the right Atrium through the vessel _________.
   A. Superior and inferior vena cava  B. Superior and inferior subclavian vein
   C. Right and left femoral vein  D. Common carotid veins

(vi) The rate at which the heart beat is controlled by the _________.
   A. S-A (Sinuatrial) node  B. Lymph node
   C. Ventricular node  D. Subclavian node

(vii) The blood plasma is a straw coloured liquid composed of _________.
   A. 70 % water and 30 % dissolved substances  B. 30 % water and 70 % dissolved substances
   C. 90 % water and 10 % dissolved substances  D. 10 % water and 90 % dissolved substances

(viii) Basically there are two circulatory systems, Systemic and Pulmonary circulations. In pulmonary circulation _________.
   A. Arteries carry oxygenated blood  B. Veins carry oxygenated blood
   C. Arteries and veins carry oxygenated blood  D. None of these

(ix) An average adult human body needs _________. water per day.
    A. 2.0 litres  B. 3.0 litres  C. 3.5 litres  D. 4.0 litres

(x) Stomach is an important organ of the digestive system. Which function is NOT related to stomach?
    A. Storage of food  B. Chemical mixing
    C. Absorption of food  D. Digestion of food
(xi) The proteins consist of highly complex molecules which contain ________.
A. Nitrogen  B. Hydrogen  C. Oxygen  D. All of these

(xii) Central nervous system gives rise to various pair of nerves which are ________.
A. 12 pairs of cranial nerves and 31 pairs of spinal nerves
B. 31 pairs of cranial nerves and 12 pairs of spinal nerves
C. 21 pairs of cranial nerves and 44 pairs of spinal nerves
D. 28 pairs of cranial nerves and 15 pairs of spinal nerves

(xiii) Tubercle of Zukerkandl is present in ________.
A. 1st deciduous molars  B. 1st permanent molars
C. 2nd deciduous premolars  D. 2nd permanent premolars

(xiv) The maxillary nerve leaves the cranium through ________.
A. Foramen rotundum  B. Foramen magnum
C. Foramen ovale  D. Foramen spinosum

(xv) When right and left temporomandibular joints function together, ________ action does not occur.
A. Anterior part of mandible depresses  B. Teeth separate
C. Mouth opens  D. Mandible swings to the lateral side

(xvi) The extrinsic muscles of each side of tongue is ________.
A. Genioglossus and Palatoglossus  B. Styloglossus and Hyoglossus
C. Both A and B  D. None of these

(xvii) Which of the following is NOT a cause of cardiac arrest?
A. Respiratory failure or obstruction  B. Fracture angle of mandible
C. Adverse drug reactions  D. Coronary thrombosis

(xviii) What is NOT likely to be encountered in a physically handicapped patient?
A. Postural position  B. Ability to cooperate
C. Convulsion  D. Communication

(xix) The styloglossus is a short muscles originating on the styloid process and inserted into the side of the tongue. Its function is to ________.
A. Draw the tongue upward and backward  B. Depress the tongue
C. Close the mouth from the pharynx  D. Pull the tongue forward

(xx) Amelogenesis is a developmental process which results in the formation of ________.
A. Enamel  B. Dentine  C. Pulp  D. Cementum

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For Examiner's use only:

Total Marks: 20

Marks Obtained: ___

---1HA-1143---
DENTAL HYGIENE  HSSC–I

Time allowed: 2:35 Hours  Total Marks Sections B and C: 80

NOTE:- Answer any ten parts from Section ‘B’ and any three questions from Section ‘C’ on the separately provided answer book. Use supplementary answer sheet i.e. Sheet–B if required. Write your answers neatly and legibly.

SECTION – B (Marks 50)

Q. 2 Attempt any TEN parts. The answer to each part should not exceed 2 to 4 lines. (10 x 5 = 50)

(i) Write briefly the blood supply of Face and Oral cavity.
(ii) Write a short note on crown of the teeth.
(iii) List the different lymph nodes in head and neck region.
(iv) A 13 years old patient came to dental clinic for filling. He has a retained primary second molar. How will you differentiate between primary and permanent teeth?
(v) Name the pain relieving drugs used in dentistry.
(vi) What do you know about Dentinogenesis?
(vii) Draw an illustrated diagram showing different groups of periodontal fibers.
(viii) Define Acute inflammation.
(ix) Write briefly the functions of periodontal ligament.
(x) What do you know about Lamina dura?
(xi) Classify different Microorganisms.
(xii) Define Neoplasm. Give different possible causes of malignancy.
(xiii) Write down the different common emergencies that can occur in dental office.
(xiv) Define Immunity. Write briefly about cell-mediated immune response.
(xv) Dentine is a highly sensitive tissue. Describe the different proposed theories of dentinal sensitivity.

SECTION – C (Marks 30)

Note: Attempt any THREE questions. All questions carry equal marks. (3 x 10 = 30)

Q. 3 Penicillin is the drug of choice in dentistry. Justify and describe the different antimicrobial drugs used in dentistry.

Q. 4 First impression is the last impression. From the start of clinic, what must be checked by the dental hygienist to prove this proverb? Give checklist for the treatment room and equipment.

Q. 5 Temporomandibular joint is the hinge between mandible and base of skull and is the only moveable joint of the skull. Describe in detail its structure and movements.

Q. 6 Write a short notes on the followings:
(a) pH  (b) Osmosis  (c) Enzymes

Q. 7 Enamel is the hardest structure of the body. Describe its composition, structure and functions.