

**ROYAL CIVIL SERVICE COMMISSION
BHUTAN CIVIL SERVICE EXAMINATION (BCSE) 2020
EXAMINATION CATEGORY: TECHNICAL**

PAPER III: SUBJECT SPECIALISATION PAPER FOR OCCUPATIONAL THERAPY

Date	: February 27, 2021
Total Marks	: 100
Writing Time	: 150 minutes (2.5 hours)
Reading Time	: 15 minutes (prior to writing time)

GENERAL INSTRUCTIONS:

1. Write your Registration Number clearly and correctly on the Answer Booklet.
2. The first 15 minutes is to check the number of pages of the Question Paper, printing errors, clarify doubts and to read the instructions. You are NOT permitted to write during this time.
3. This paper consists of **TWO SECTIONS**, namely SECTION A & SECTION B:
 - **SECTION A** has two parts: Part I - 30 Multiple Choice Questions
Part II - 4 Short Answer Questions
All questions under SECTION A are COMPULSORY.
 - **SECTION B** consists of two Case Studies. Choose only **ONE** case study and answer the questions of your choice.
4. All answers should be written on the Answer Booklet provided to you. Candidates are not allowed to write anything on the question paper. If required, ask for additional Answer Booklet.
5. All answers should be written with correct numbering of Section, Part and Question Number in the Answer Booklet provided to you. Note that any answer written without indicating the Section, Part and Question Number will NOT be evaluated and no marks will be awarded.
6. Begin each Section and Part on a fresh page of the Answer Booklet.
7. You are not permitted to tear off any sheet(s) of the Answer Booklet as well as the Question Paper.
8. Use of any other paper including paper for rough work is not permitted.
9. **You must hand over the Answer Booklet to the Invigilator before leaving the examination hall.**
10. This paper has **8 printed pages**, including this instruction page.

GOOD LUCK!

SECTION A

PART I: Multiple Choice Questions [30 marks]

Choose the correct answer and write down the letter of your chosen answer in the Answer Booklet against the question number e.g. 31 (d). Each question carries ONE mark. Any double writing, smudgy answers or writing more than one choice shall not be evaluated.

1. An occupational therapist observes that the 18-month-old child is not able to creep more than few steps because as he looks up, his hips and knees flex and ends up W-sitting with his arms extended and propped forward. The occupational therapist demonstrates
 - a) an intact labyrinthine reflex which facilitates balance responses.
 - b) an obligatory asymmetrical tonic neck reflex resulting in delayed gross motor skills.
 - c) an influence of symmetrical tonic neck reflex resulting in delayed gross motor skills.
 - d) typical development of locomotion skills.

2. All of the following are MOHO-based occupational therapy assessments that incorporate MOHO frame of reference EXCEPT
 - a) Interest checklist
 - b) Role checklist
 - c) Worker's role interview
 - d) Visual motor integration scale

3. Sangay has suffered from stroke a month ago and she can now hold water bottle and yarn balls as well as fully release objects from her hand. What stage of Brunnstorm recovery stage is i=she in?
 - a) Stage III
 - b) Stage IV
 - c) Stage V
 - d) Stage VI

4. What does a score of 9 mean in the Glasgow Comas Scale?
 - a) Minor brain injury
 - b) Moderate brain injury
 - c) Severe brain injury
 - d) Fully conscious

5. An occupational therapist is evaluating a 66-year-old female who has a history of severe head trauma following a motor vehicle accident. The patient has difficulty with rapid alternating movements while performing neurologic testing. The BEST term to describe this specific impairment is
 - a) Ataxia
 - b) Dysmetria
 - c) Dysarthria
 - d) Dysdiadocokinesia

6. An occupational therapist is assessing a patient with suspected spinal cord injury in the ward. The Patient has motor deficits on his left leg with pain and temperature sensation loss in his right leg. The manifestations could be because of
 - a) Central cord syndrome
 - b) Left brown-sequard syndrome
 - c) Right brown-sequard syndrome
 - d) Posterior cord syndrome

7. You are assessing a traumatic brain injury patient and note that the patient is very agitated, moving around his bed almost non-stop, requiring restraints at times. The patient is also very confused and follows very few one-step commands. According to the Rancho Los Amigos Levels of Cognitive Function Scale, your patient is at
 - a) Level II
 - b) Level III
 - c) Level IV
 - d) Level V

8. Which one of the following types of spinal cord injury is most associated with increased upper limb functional impairments compared to lower limbs?
 - a) Brown-Sequard syndrome
 - b) Posterior cord syndrome
 - c) Anterior cord syndrome
 - d) Central cord syndrome

9. As per parent report or therapist's observation, a 5-year-old boy fidgets so much that daily routines are interrupted, spins or twirls frequently, and rocks in his chair while performing fine motor tasks. During evaluation, he wants to try all suspended equipment in the room. This assessment findings mostly correlates to
 - a) high threshold tactile processing.
 - b) high threshold vestibular processing.
 - c) low threshold auditory processing.
 - d) low threshold vestibular processing.

10. After working for several hours as a mechanic, a patient describes sharp elbow pain over the origin point of the common extensor tendon of the wrist extensors. The pain is alleviated with rest. Which of the following disorders is MOST likely present?
 - a) Medial epicondylitis
 - b) Lateral epicondylitis
 - c) Anconeus tendonitis
 - d) Olecranon bursitis

11. A patient who has suffered a cutting injury to the entire left half of the spinal cord at the T8 level is being examined by a physiotherapist. Which of the following impairments would be MOST apparent on the ipsilateral lower extremity?
- Loss of pain and temperature sensation.
 - Loss of movement and light touch sensation.
 - Loss of peripheral smooth muscle control.
 - Loss of coordination and accuracy.
12. You are examining a patient with a cervical spinal cord injury and observes that the patient is able to press up from the wheelchair using elbow extensors. Which spinal level MUST be intact to perform this manoeuvre?
- C4
 - C5
 - C6
 - C7
13. During an initial ADL evaluation, the patient is provided a toothbrush and is asked to brush his/her teeth. The patient begins brushing his/her hair with the toothbrush. Which behaviour is this most likely indicative of?
- Asterognosis
 - Motor apraxia
 - Simultanognosia
 - Ideational apraxia
14. An OT is evaluating a patient and notices that the patient's PIP joint is hyperextended and the DIP is flexed. Which of the following best describes this condition?
- Swan neck deformity
 - Subluxation deformity
 - Boutonniere deformity
 - Mallet deformity
15. When there is a pain with resisted thumb extension or abduction, and positive to Finkelstein's test is
- Lateral epicondylitis
 - De Quervian's disease
 - Carpal tunnel syndrome
 - Cubital tunnel syndrome
16. Damage to right hemisphere would result in the following symptoms EXCEPT
- Speech
 - Visual spatial processing
 - Emotion
 - Left motor praxis

17. Eugen Bleuler's Fundamental Symptoms of schizophrenia includes all of the following EXCEPT
- Ambivalence
 - Autism
 - Atheism
 - Association disturbances
18. A 30-year-old male presents to outpatient rehabilitation with numbness and tingling on the 4th and 5th fingers of the left hand consistent with nerve entrapment symptoms. Upon further examination, it is noted that the patient has normal sensation on the dorsum of the hand on the ulnar side. Where is the MOST likely source of nerve entrapment?
- Guyon's Canal
 - Carpal Tunnel
 - Cubital Tunnel
 - 1st Rib
19. With full wrist flexion, you are not able to achieve full fingers flexion. Which of the following statements explains this biomechanic?
- Active insufficiency of extensors and passive insufficiency of flexors.
 - Active insufficiency of flexors and passive insufficiency of extensors.
 - Passive insufficiency of flexors and passive insufficiency of extensors.
 - Active insufficiency of flexors and active insufficiency of extensors.
20. Self dramatisation and exaggerated expression of emotions, suggestibility, shallow and labile affectivity, continual attention seeking attitude, inappropriate seductiveness, and over-concern with physical attractiveness are found in
- Histrionic personality disorder
 - Narcissistic personality disorder
 - Anxious personality disorder
 - Antisocial or dissocial personality disorder
21. Unconscious attribution of one's own attitudes and urges to other person(s), because of intolerance or painful affect aroused by those attitudes and urge is
- Repression
 - Denial
 - Projection
 - Regression
22. Benediction sign is seen in which of the following peripheral neuropathy?
- Median nerve
 - Ulnar nerve
 - Radial nerve
 - Posterior interosseous nerve

23. After sustaining a traumatic brain injury, a patient presents to physical therapy with symptoms consistent with damage to the amygdala, hippocampus, and thalamic nuclei. Which of the following symptoms will MOST likely be present in this patient?
- Impaired fine motor skills, including ataxia.
 - Disrupted vision, hearing, and sensation to the face/tongue.
 - Hemiparesis, with the upper extremity more affected than the lower extremity.
 - Lack of behaviour control and memory difficulties.
24. Terry Thomas sign is seen in
- Scapho-lunate dissociation
 - Scaphoid waist fracture
 - Avn of lunate
 - Carpal tunnel syndrome
25. Which of the following conveys the sensation of warmth?
- Meissner's corpuscles
 - Ruffini's end bulb
 - Krause's end bulb
 - Pacinian corpuscles
26. A type of cerebral palsy where there is a damage to the extrapyramidal system is
- Spastic diplegia
 - Hemiplegic cerebral palsy
 - Ataxic cerebral palsy
 - Athetotic cerebral palsy.
27. What is the condition in which the patient is unable to formulate a plan of action?
- Ideational apraxia
 - Motor apraxia
 - Constructional apraxia
 - Ideomotor apraxia
28. Which of the following tendons are inflamed or involved in the De Quervain's tenosynovitis?
- ECRL and APB
 - APL and EPB
 - FPL and EPB
 - FPL and APL
29. A score of 3 for verbal response corresponds to which response in Glasgow Coma Scale?
- Incomprehensible sound
 - Confused, disoriented words
 - Makes no sound
 - Utters inappropriate words

30. 'Night stick fracture' is a fracture of shaft of
- a) Radius
 - b) Tibia
 - c) Ulna
 - d) Fibula

PART II – Short Answer Questions [20 marks]

This part has 4 Short Answer Questions. Answer ALL the questions. Each question carries 5 marks.

Write short notes on the following. Illustrate wherever necessary

1. Describe circle of Willis.
2. Describe spino-thalamic tract.
3. Cognitive rehabilitation.
4. Brachial plexus.

SECTION B: CASE STUDY [50 marks]

Choose either CASE I or CASE II from this section. Each case study carries 50 marks. Mark for each sub-question is indicated in the brackets.

CASE I

Dema is 45 years old and has 3 years history of rheumatoid arthritis. She is stable on disease modifying anti rheumatic drugs. At her 6 monthly rheumatology appointment, she complained of increasing wrist, MCP and shoulder pain. She has deformed hands and she also complained of pain in her feet. She works as school teacher and her work has been affected. She was referred to OT for hand function assessment. Please help her with work problem and self-management education.

1. Describe Rheumatoid Arthritis. (5 marks)
2. Explain the role of splinting in RA and list some hand splints used in RA (5 marks)
3. Define ergonomics. What ergonomic approaches can be used for Dema? (5 marks)
4. Educate Dema about joint protection principles (5 marks)
5. What are some of the adaptive equipment that can be suggested to her? (3 marks)
6. What assessments can be used to evaluate occupational performance for people with RA?
(2 marks)

7. Write in detail and describe the area that an OT would assess along with OT problem list for her condition? (10 marks)
8. List the rehabilitation goals for Dema. (5 marks)
9. Describe a home-based hand exercise program suitable for her. (3 marks)
10. List the criteria for the diagnosis of rheumatoid arthritis according to American College of Rheumatology. (5 marks)
11. Describe briefly the common hand deformities in RA. (2 marks)

CASE II

Pema is a 6 years old girl who has started going to school. There has been increasing number of behavioural complaints about her in the school. The incidents include physical harm to her teachers and some classmates. It usually happens when they sat beside her to assist with work, yet at times she would seek hugs from them. Teachers also expressed concerns about her not being able to complete the work due to inability to sit for more than 1-2 minutes at a time. They observed the best time to complete the work with her is after interval and lunch break. During games period, she pushes the person next to her and occasionally pulls their hair. Parent noticed that she was calmer when they take her to park and play rough games at home.

1. What is the likely diagnosis or condition of the above case? (1 marks)
2. Describe a detailed assessment that you would make for Pema? (10 marks)
3. What management approaches would you use in her case? (5 marks)
4. Describe the types of behavioural approaches? (5 marks)
5. List the Diagnostic Statistical Manual V (DSM V) Criteria for her diagnosis. (5 marks)
6. Suggest some classroom modifications to enhance her learning. (5 marks)
7. List the assessment tools that can be used for the probable diagnosis. (3 marks)
8. What is sensory diet? Design a sensory diet for Pema. (6 marks)
9. How would you incorporate play in the therapy? (5 marks)
10. What are the occupations of a 6 years old child? (5 marks)

TASHI DELEK