

(To be filled up by the candidate by blue/black ball point pen)

Roll No.

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Roll No. (Write the digits in words)

Serial No. of OMR Answer Sheet

Day and Date

(Signature of Invigilator)

INSTRUCTIONS TO CANDIDATES

(Use only blue/black ball-point pen in the space above and on both sides of the Answer Sheet)

1. Within 30 minutes of the issue of the Question Booklet, Please ensure that you have got the correct booklet and it contains all the pages in correct sequence and no page/question is missing. In case of faulty Question Booklet, Bring it to the notice of the Superintendent/Invigilators immediately to obtain a fresh Question Booklet
2. Do not bring any loose paper, written or blank, inside the Examination Hall *except the Admit Card without its envelope.*
3. *A separate Answer Sheet is given. It should not be folded or mutilated. A second Answer Sheet shall not be provided.*
4. Write your Roll Number and Serial Number of the Answer Sheet by pen in the space provided above.
5. *On the front page of the Answer Sheet, write by pen your Roll Number in the space provided at the top, and by darkening the circles at the bottom. Also, wherever applicable, write the Question Booklet Number and the Set Number in appropriate places.*
6. *No overwriting is allowed in the entries of Roll No., Question Booklet No. and Set No. (if any) on OMR sheet and Roll No. and OMR sheet no. on the Question Booklet.*
7. *Any change in the aforesaid entries is to be verified by the invigilator, otherwise it will be taken as unfair means.*
8. *This Booklet contains 40 multiple choice questions followed by 10 short answer questions. For each MCQ, you are to record the correct option on the Answer Sheet by darkening the appropriate circle in the corresponding row of the Answer Sheet, by pen as mentioned in the guidelines given on the first page of the Answer Sheet. For answering any five short Answer Questions use five Blank pages attached at the end of this Question Booklet.*
9. For each question, darken only **one** circle on the Answer Sheet. If you darken more than one circle or darken a circle partially, the answer will be treated as incorrect.
10. *Note that the answer once filled in ink cannot be changed. If you do not wish to attempt a question, leave all the circles in the corresponding row blank (such question will be awarded zero marks)*
11. For rough work, use the inner back pages of the title cover and the blank page at the end of this Booklet.
12. *Deposit both OMR Answer Sheet and Question Booklet at the end of the Test.*
13. You are not permitted to leave the Examination Hall until the end of the Test.
14. If a candidate attempts to use any form of unfair means, he/she shall be liable to such punishment as the University may determine and impose on him/her.

ROUGH WORK

रफ़ कार्य

Research Entrance Test-2017

No. of Questions : 50

प्रश्नों की संख्या : 50

Time : 2 Hours

Full Marks : 200

समय : 2 घण्टे

पूर्णाङ्क : 200

Note: (1) This Question Booklet contains **40** Multiple Choice Questions followed by **10** Short Answer Questions.

इस प्रश्न पुस्तिका में **40** वस्तुनिष्ठ व **10** लघु उत्तरीय प्रश्न हैं।

(2) Attempt as many MCQs as you can. Each MCQ carries **3 (Three)** marks. **1 (One)** mark will be deducted for each incorrect answer. **Zero** mark will be awarded for each unattempted question. If more than one alternative answers of MCQs seem to be approximate to the correct answer, choose the closest one.

अधिकाधिक वस्तुनिष्ठ प्रश्नों को हल करने का प्रयत्न करें। प्रत्येक वस्तुनिष्ठ प्रश्न **3 (तीन)** अंकों का है। प्रत्येक गलत उत्तर के लिए **1 (एक)** अंक काटा जायेगा। प्रत्येक अनुत्तरित प्रश्न का प्राप्तांक शून्य होगा। यदि वस्तुनिष्ठ प्रश्नों के एकाधिक वैकल्पिक उत्तर सही उत्तर के निकट प्रतीत हों, तो निकटतम सही उत्तर दें।

(3) Answer only **5** Short Answer Questions. Each question carries **16 (Sixteen)** marks and should be answered in **150-200** words. Blank **5 (Five)** pages attached with this booklet shall only be used for the purpose. Answer each question on separate page, after writing Question No.

केवल **5 (पाँच)** लघुउत्तरीय प्रश्नों के उत्तर दें। प्रत्येक प्रश्न **16 (सोलह)** अंकों का है तथा उनका उत्तर **150-200** शब्दों के बीच होना चाहिए। इसके लिए इस पुस्तिका में लगे हुए सादे **5 (पाँच)** पृष्ठों का ही उपयोग आवश्यक है। प्रत्येक प्रश्न का उत्तर एक नए पृष्ठ से, प्रश्न संख्या लिखकर शुरू करें।

- 01.** Which kidney Disease is a "Global Public Health" Problem Worldwide ?
- (1) Acute Kidney Injury (AKI)
 - (2) Kidney Stone
 - (3) Chronic Kidney Disease (CKD)
 - (4) Renal Papillary Necrosis
- 02.** Which Virus affects mainly Human Immune System ?
- (1) Hepatitis A Virus (HAV)
 - (2) Parvo Virus B19
 - (3) Cytomegla Virus (CMV)
 - (4) Human Immunodeficiency Virus (HIV)
- 03.** Which BHU Alumnus is honoured with "Bharat Ratna" ?
- | | |
|---------------------|-------------------------|
| (1) Prof.K.N.Udappa | (2) Prof.O.N.Srivastava |
| (3) Prof.C.N.R.Rao | (4) Prof.R.D.Dwivedi |
- 04.** Which of the following drug is used as "Immunosuppression" ?
- | | |
|-------------------|------------------|
| (1) Citrofloxacin | (2) Aspirin |
| (3) Ampicillin | (4) Cyclosporine |
- 05.** The Probability of a particle to cross a barrier of height more than the kinetic energy of the particle is :
- | | |
|--------------------------|---------|
| (1) zero | (2) one |
| (3) between zero and one | (4) 50% |

06. Deficiency of which of the following mineral nutrients induces dental carries and mottled enamel ?
- (1) Molybdenum (2) Cobalt
(3) Fluorine (4) Iron
07. Oxidation number of Iodine is highest in which compound ?
- (1) KI (2) KI₃
(3) IF₅ (4) KIO₄
08. In which part of our body, antibodies are formed ?
- (1) Brain (2) Lungs
(3) Bone marrow (4) Spleen
09. Which of the following sensations is not generated by impulses initiated in naked nerve endings ?
- (1) Touch (2) Pain
(3) Cold (4) Smell
10. Sound cannot travel through :
- (1) Air (2) Water
(3) Fire (4) Vacuum()
11. Sommer's movements of Forensic Medicine are associated with :
- (1) Decomposition (2) rigor mortis
(3) Post mortem lividity (4) Mummification

12. Father of Modern toxicology is :
- | | |
|----------------|----------------|
| (1) J. Cameron | (2) Alfred |
| (3) Orfila | (4) Rokitansky |
13. The process which causes drying up of tissues and internal viscera to a sufficient degree to halt putrefaction is called :
- | | |
|--------------------|-------------------------|
| (1) Saponification | (2) Adipocere formation |
| (3) Mummification | (4) Putrefaction |
14. Temperature of the body rises up for the first 2 hrs after death. The probable condition includes the following except :
- | | |
|----------------|----------------|
| (1) Sun stroke | (2) Frost bite |
| (3) Septicemia | (4) Tetanus |
15. Typical injury in a bomb explosion is :
- (1) Abrasion
 - (2) Punctate bruises
 - (3) Puncture laceration
 - (4) A triad of punctuate bruises, abrasions and puncture lacerations
16. Arborescent markings are due to :
- | | |
|---------------|---------------|
| (1) Dry burns | (2) Scalds |
| (3) hanging | (4) Lightning |
17. The most common type of haemorrhage seen in boxers is :
- | | |
|------------------|-------------------|
| (1) Extradural | (2) Subdural |
| (3) Subarachnoid | (4) Intracerebral |
18. Which of the following is more dangerous in causing spinal damage ?
- (1) Hyperextension of the neck
 - (2) Hyperflexion of the neck
 - (3) Both hyperflexion and hyperextensions of the neck
 - (4) None can cause spinal damage

19. Greenish colour in a contusion is due to :
- (1) Haemosiderin (2) Haematoidin
(3) Sulphmethemoglobin (4) Methaemoglobin
20. Gutter fracture is caused by :
- (1) A firearm missile glancing along the outer table of the skull
(2) Falling into a shallow gutter
(3) Falling into a river or any other body of water
(4) Both (b) and (c)
21. In the skull, fractures caused not at the point of impact, but some distance away from it is known as :
- (1) Diagonal fractures (2) Atypical skull fractures
(3) Bursting fractures (4) Depressed fractures
22. For diatom test, the best site for taking samples is :
- (1) Lungs
(2) Bone marrow in ulna
(3) Bone marrow in femur
(4) A large and fleshy muscle
23. Cyanide is toxic because it :
- (1) Inhibits cytochrome C oxidase
(2) Forms cyan meth-Hb
(3) Inhibits ATP carrier in mitochondria
(4) Inhibits Na⁺-K⁺ ATPase
24. Hostile witness comes under :
- (1) IPC 191 (2) IPC 171
(3) IPC 141 (4) IPC 131

25. A boy has 16 permanent teeth and 8 temporary teeth. His age is likely to be :
- (1) 09 yrs (2) 10 yrs
(3) 11 yrs (4) 12 yrs
26. juvenile is a girl who has not attained the age of :
- (1) 12 years (2) 14 years
(3) 16 years (4) 18 years
27. Rokitansky's method is :
- (1) An autopsy technique for infants
(2) Used in heavy metal detection
(3) Used for estimation of age using skull sutures
(4) Used in brain mapping
28. Which of the following is NOT a cause of death due to suffocation ?
- (1) Smothering (2) Choking
(3) Gagging (4) Throttling
29. All are grievous hurts EXCEPT :
- (1) Dislocated shoulder
(2) Incised wound on abdominal wall without peritoneal injury
(3) Nasal bone fracture
(4) Permanent disfigurement of face
30. Sexual asphyxia is seen in :
- (1) Transvestism (2) Frotteurism
(3) Masochism (4) Tribadism
31. Charas' is :
- (1) Leaves of Cannabis indica
(2) Flowers of Cannabis indica
(3) Stem of Cannabis indica
(4) Resin exudates of cannabis indica

32. Specimens for toxicological studies are preserved in :
- (1) 10% formaldehyde
 - (2) Alcohol
 - (3) Supersaturated solution of common salt
 - (4) Normal saline
33. Atropine is contraindicated in :
- (1) Mushroom poisoning
 - (2) Oleander poisoning
 - (3) Datura poisoning
 - (4) Organophosphorus
34. The colour of postmortem staining is brick red in poisoning with :
- (1) Carbon monoxide
 - (2) Phosphorous
 - (3) Cyanides
 - (4) Carbon dioxide
35. Zinc phosphide is a :
- (1) Contact poison
 - (2) Respiratory poison
 - (3) Stomach poison
 - (4) Hemotoxin
36. 'Lucid Interval' may be seen in :
- (1) Extradural haemorrhage
 - (2) Insanity
 - (3) Subdural haemorrhage
 - (4) Both A and B
37. Telephone is :
- (1) Pulling of hair
 - (2) Beating on soles
 - (3) Beating on ears
 - (4) Beating on fingers
38. The fetus can be considered viable if the following ossification center appears :
- (1) Calcaneum
 - (2) Manubrium sterni
 - (3) Lower end of femur
 - (4) None of the above

- 39.** In India, magistrate inquest is done in the following cases, EXCEPT :
- (1) Exhumation cases
 - (2) Dowry deaths within 5 years of marriage
 - (3) Murder cases
 - (4) Death of a person in police custody
- 40.** Same charged two proteins separation is done by :
- (1) Agarose
 - (2) DEAE Cellulose
 - (3) Sephadex
 - (4) None

Short Answer Questions

Note: Attempt any **five** questions. Write answer in **150-200** words. Each question carries **16** marks. Answer each question on separate page, after writing Question Number.

- 01.** What are different methods of collection of physical evidences from a crime scene ?
- 02.** What is Forensic toxicology ? Enumerate different war gases used in modern warfare.
- 03.** Enumerate the samples to be collected from a victim of sexual assault. Describe in brief about preservation and transport of those samples to a Forensic Science Laboratory.
- 04.** Describe/Enumerate the role of blood grouping in Forensic Medicine/ Science.
- 05.** What are trace evidences ? Describe in brief the importance of hair in crime detection.
- 06.** What are modern methods for Crime detection ? Describe in brief about any one.
- 07.** enumerate the role of X-rays in Forensic Medicine.
- 08.** How will you investigate a case of suicidal hanging ?
- 09.** What the entire factor that affects the damaging power of a bullet ? Describe in brief about primary and secondary cavitations.

10. Discuss the principles of Gas Chromatograph. Describe the advantage of Mass Spectrophotometry (GC-MS) in addition to Gas Chromatograph. Enumerate the poisons that can be detected by GC-MS.

Question No.

Page for Short Answer

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Page for Short Answer

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Page for Short Answer

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Page for Short Answer

ROUGH WORK

रफ़ कार्य

अभ्यर्थियों के लिए निर्देश

(इस पुस्तिका के प्रथम आवरण पृष्ठ पर तथा उत्तर-पत्र के दोनों पृष्ठों पर केवल नीली-काली बाल-प्वाइंट पेन से ही लिखें)

1. प्रश्न पुस्तिका मिलने के 30 मिनट के अन्दर ही देख ले कि प्रश्नपत्र में सभी पृष्ठ मौजूद हैं और कोई प्रश्न छूटा नहीं है। पुस्तिका दोषयुक्त पाये जाने पर इसकी सूचना तत्काल कक्ष-निरीक्षक को देकर सम्पूर्ण प्रश्नपत्र की दूसरी पुस्तिका प्राप्त कर लें।
2. परीक्षा भवन में लिफाफा रहित प्रवेश-पत्र के अतिरिक्त, लिखा या सादा कोई भी खुला कागज साथ में न लायें।
3. उत्तर-पत्र अलग से दिया गया है। इसे न तो मोड़ें और न ही विकृत करें। दूसरा उत्तर-पत्र नहीं दिया जायेगा। केवल उत्तर-पत्र का ही मूल्यांकन किया जायेगा।
4. अपना अनुक्रमांक तथा उत्तर-पत्र का क्रमांक प्रथम आवरण-पृष्ठ पर पेन से निर्धारित स्थान पर लिखें।
5. उत्तर-पत्र के प्रथम पृष्ठ पर पेन से अपना अनुक्रमांक निर्धारित स्थान पर लिखें तथा नीचे दिये वृत्तों को गाढ़ा कर दें। जहाँ-जहाँ आवश्यक हो वहाँ प्रश्न-पुस्तिका का क्रमांक तथा सेट का नम्बर उचित स्थानों पर लिखें।
6. ओ० एम० आर० पत्र पर अनुक्रमांक संख्या, प्रश्नपुस्तिका संख्या व सेट संख्या (यदि कोई हो) तथा प्रश्नपुस्तिका पर अनुक्रमांक और ओ० एम० आर० पत्र संख्या की प्रविष्टियों में उपरिलेखन की अनुमति नहीं है।
7. उपर्युक्त प्रविष्टियों में कोई भी परिवर्तन कक्ष निरीक्षक द्वारा प्रमाणित होना चाहिये अन्यथा यह एक अनुचित साधन का प्रयोग माना जायेगा।
8. प्रश्न-पुस्तिका में प्रत्येक प्रश्न के चार वैकल्पिक उत्तर दिये गये हैं। प्रत्येक प्रश्न के वैकल्पिक उत्तर के लिए आपको उत्तर-पत्र की सम्बन्धित पंक्ति के सामने दिये गये वृत्त को उत्तर-पत्र के प्रथम पृष्ठ पर दिये गये निर्देशों के अनुसार पेन से गाढ़ा करना है।
9. प्रत्येक प्रश्न के उत्तर के लिए केवल एक ही वृत्त को गाढ़ा करें। एक से अधिक वृत्तों को गाढ़ा करने पर अथवा एक वृत्त को अपूर्ण भरने पर वह उत्तर गलत माना जायेगा।
10. ध्यान दें कि एक बार स्याही द्वारा अंकित उत्तर बदला नहीं जा सकता है। यदि आप किसी प्रश्न का उत्तर नहीं देना चाहते हैं, तो संबंधित पंक्ति के सामने दिये गये सभी वृत्तों को खाली छोड़ दें। ऐसे प्रश्नों पर शून्य अंक दिये जायेंगे।
11. रफ कार्य के लिए प्रश्न-पुस्तिका के मुखपृष्ठ के अंदर वाला पृष्ठ तथा उत्तर-पुस्तिका के अंतिम पृष्ठ का प्रयोग करें।
12. परीक्षा के उपरान्त केवल ओ एम आर उत्तर-पत्र परीक्षा भवन में जमा कर दें।
13. परीक्षा समाप्त होने से पहले परीक्षा भवन से बाहर जाने की अनुमति नहीं होगी।
14. यदि कोई अभ्यर्थी परीक्षा में अनुचित साधनों का प्रयोग करता है, तो वह विश्वविद्यालय द्वारा निर्धारित दंड का की. भागी होगा।