



BAMF15

# HARYANA VISHWAKARMA SKILL UNIVERSITY

(Established under the Government of Haryana Act of Legislation No 25/2016)

**Course** : B.Voc. (Automotive Manufacturing)  
**Subject** : Measurement & Metrology  
**Semester** : 2<sup>nd</sup>  
**Subject Code** : BBME-104  
**Duration** : 3 Hours  
**Maximum Marks** : 35

## Instructions to the Students

1. This Question paper consists of two Sections. All sections are compulsory.
2. **Section A** comprises ten questions of objective type in nature. All questions are compulsory. Each question carries one mark.
3. **Section B** comprises six essay type questions out of which students need to do any five. Each question carries five marks.
4. Read the questions carefully and write the answers in the answer sheets provided.
5. Do not write anything on the question paper.
6. Wherever necessary, the diagram drawn should be neat and properly labelled.

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**SECTION-A (OBJECTIVE TYPE QUESTIONS)**

(10×1= 10 Marks)

- Q1 The principle of 'Interchangeability' is normally employed for
- a. Mass production
  - b. Production of identical parts
  - c. Parts within the prescribed limits of sizes
  - d. All of the above
- Q2 The following is not a method to find effective thread diameter
- a. Thread micrometer
  - b. Two wire method
  - c. Three wire method
  - d. The v-piece method
- Q3 The degree of closeness of the measured value of a certain quantity with its true value is known as
- a. Accuracy
  - b. Precision
  - c. Standard
  - d. Sensitivity
- Q4 Error of measurement =
- a. True value – Measured value
  - b. Precision – True value
  - c. Measured value – Precision
  - d. None of the above
- Q5 Which gauge is used to check the clearance between the two mating parts.
- a. Screw gauge
  - b. Radius gauge
  - c. Feeler gauge
  - d. Wire gauge

**Q6 The following is used to check the diameters of holes**

- a. Plug gauge
- b. Ring gauge
- c. Slip gauge
- d. Standard screw pitch gauge

**Q7 The following is not used to measure angles**

- a. Bevel protectors
- b. Calibrated levels
- c. Clinometers
- d. Optical flats

**Q8 A shaft rotating in a bushed bearing is good example of**

- a. Sliding fit
- b. Push fit
- c. Running fit
- d. Driving fit

**Q9 The following is not used to measure angles**

- a. Bevel protectors
- b. Calibrated levels
- c. Clinometers
- d. Optical flats

**Q10 The following is not a method to find effective thread diameter**

- a. Thread micrometer
- b. Two wire method
- c. The v-piece method
- d. Three wire method

**SECTION-B (EASSY TYPE QUESTIONS)**

**(5×5= 25 Marks)**

- Q11 What do mean by measurement? Explain different methods of measurement.
- Q12 What do you mean by Comparators? Explain their types with the help of a diagram.
- Q13 A) Describe Linear and angular measurements in brief.  
B) Explain concept of fitting tightening and torqueing in line.
- Q14 Explain Gear measurement and its different types used in Industries.
- Q15 What do you mean by GD & T? Discuss the various parameters of measurement of GD &T in details.
- Q16 Explain different types of errors occur in measurement with suitable examples and discuss the mean adopted to minimize these errors.

-----**END OF PAPER**-----

THE HISTORY OF THE

AMERICAN PEOPLE

FROM THE FIRST SETTLEMENTS TO THE PRESENT

BY

CHARLES A. BEAUMONT

AND

EDWARD C. BROWN

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